XDR960 8 & 16 Channel DVR User manual

Safety Information

Safety Information
Before You Begin
Read these instructions before installing or operating this product.
Note: This installation should be made by a qualified service person and should conform to local codes.
This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use
Only use this product for its designated purpose; refer to the product specification and user documentation.
Customer Support
For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:
Norbain SD Ltd, 210 Wharfedale Road, IQ Winnersh, Wokingham, Berkshire RG41 5TP, England.

UK +44 (0) 118 912 5000
Note: You should be at the equipment and ready with details before calling Technical Support.
Conventions Used in this Manual
Boldface or button icons highlight command entries. The following **warning, CAUTION** and **Note** statements identify potential hazards that can occur if the equipment is not handled properly:

* **Warning:**
Improper use of this equipment can cause severe bodily injury or equipment damage.

** Caution:
Improper use of this equipment can cause equipment damage.
Note: Notes contain important information about a product or procedure.

This apparatus is manufactured to comply with the radio interference.
A Declaration of Conformity in accordance with the following EU standards has been made. The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/EC, the CE Marking Directive 93/68 EEC and all associated amendments.
All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

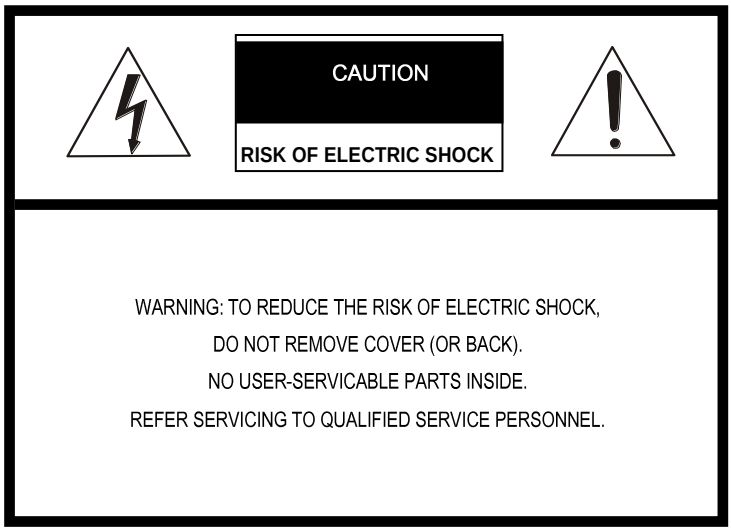
The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

* This symbol indicates electrical warnings and cautions.

** This symbol indicates general warnings and cautions.

NORBAIN SD LTD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:
To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.



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1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

Items	Photo	Quantity
User Manual (DVR & Software) Quick Start Guide		1 Set 1 Set
CD (Manual & Software) and Rubber Mount		1 Set 1 Set (4 Pieces)
12V DC Adaptor Power Cable		1 Set
IR Remote Controller		1 Set
USB Mouse		1 Set

Ground Screw		1 Set (1piece QVS Rear / 1piece)

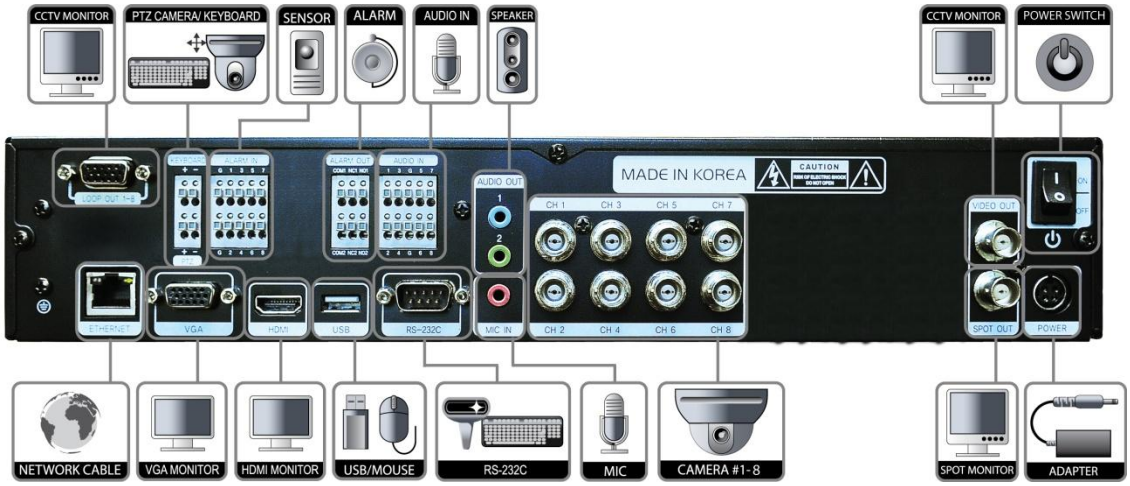
1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.

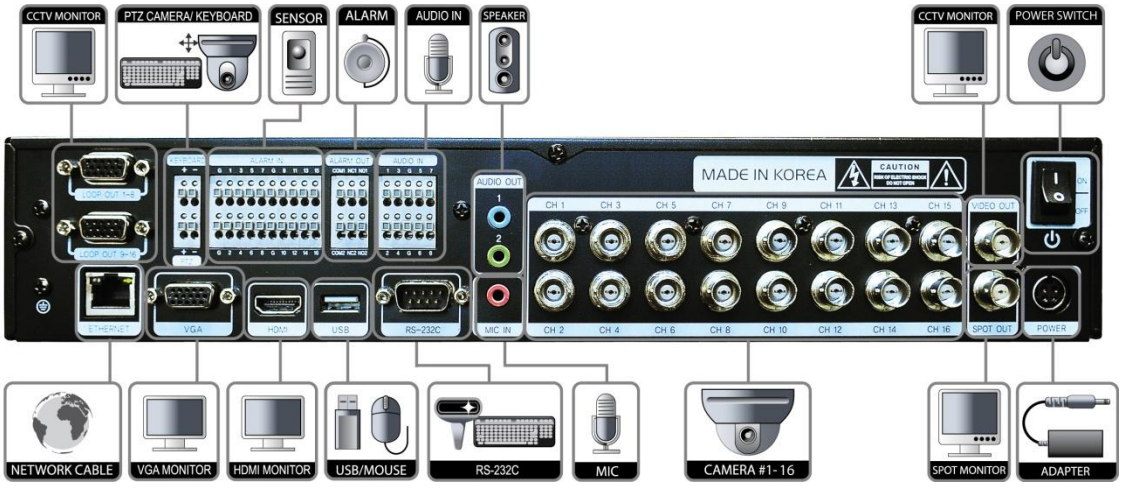
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE Install the system in a location with good ventilation to prevent overheating.

[8CH (W)360x(H)66x(D)380mm]



[16CH (W)360x(H)66x(D)380mm]

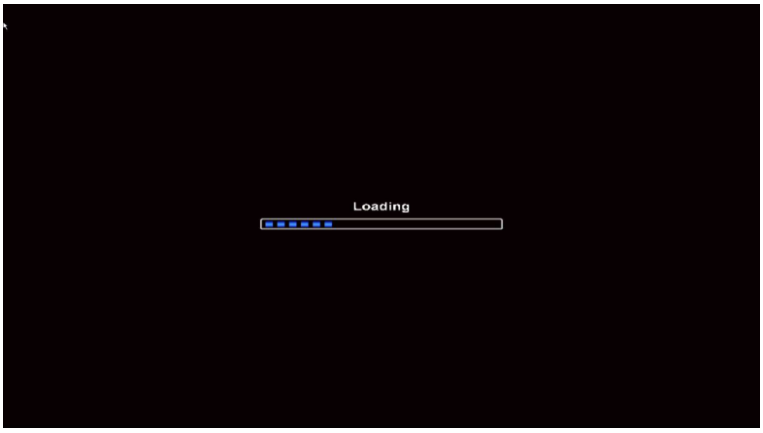


WARNING ! ※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall AC socket.

1.3 System Startup and Shutdown

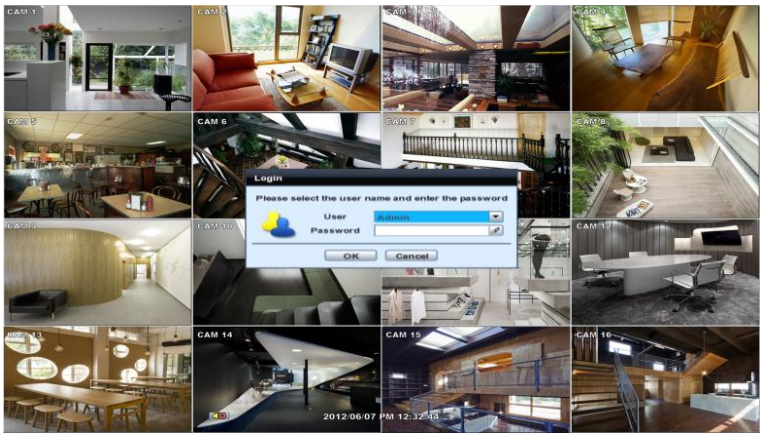
1.3.1 System Startup

After connecting peripheral devices such as cameras, monitors and a mouse to the DVR, power up the DVR by connecting DC12V 6.67A adaptor to the power jack on the rear panel. The boot log will display as shown below. Please wait until the boot process completes.



Login with 'User Name' at the login window which will appear as shown below.

There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by 'admin' account can also login with a specific password set by 'admin' account.

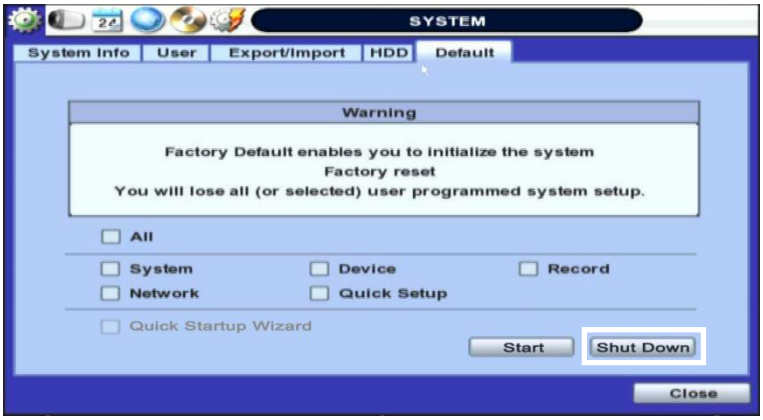


NOTE Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

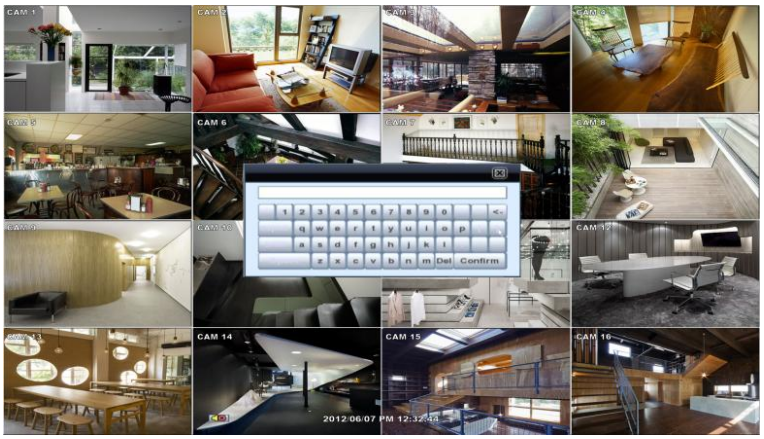
NOTE The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 System Shutdown and change password

Click the Shutdown button and input password on pop-up to power off the DVR.



The default password for 'admin' account is none. Therefore, just click 'Enter' button on the dial pad. If you changed the password for 'admin' account, please type in the changed password to login.



NOTE User can type in the password using the virtual keyboard or the numeric buttons on the IR remote controller.

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

[4/8/16CH with DVD±RW (W)360x(H)66x(D)380mm]

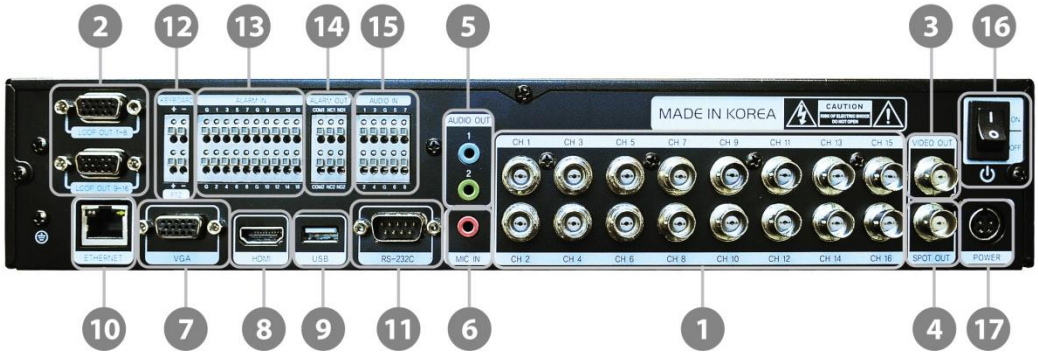
No.	Buttons	Functions
1	Fast Rewind Button	Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
2	Forward & Backward Play / Pause Button	Forward play & Backward Play (Long Press) / Pause (Short Press)
3	Fast Forward Button	Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
4	Search	Go to search mode
5	Book-Mark / Instant Play (Press and hold)	Book-Mark / Used to initiate Instant Reverse Playback
6	Instant Record / Call Monitor (Press and hold)	Emergency Recording / Used to display full screen video of a selected spot out channel
7	PTZ I-backup (Press and hold)	Bring up PTZ Camera control / Used to initiate instant back up
8	Mode Freeze(Press and hold)	Change screen mode / Used to initiate Freeze function
9	USB Port	USB port (Ver. 2.0) for mouse operation and backup device or F/W update
10	LED Indicator	Indicates system status Power, Record, HDD and Remote Control
11	Menu Exit	Open system menu / Return to previous mode
12	Enter Button	Select value or setting
13	Direction Button	Move to the direction that user wants to select
14	DVD±RW	DVD±RW : Open to use a pre-installed DVD±RW(Option)

NOTE **I- Backup (Instant Backup)**
In playback mode, the user can press the "I-backup" button on the frontal keypad to configure both "start" and "End" time. Once the "Start" and "End" time is set, click the "Start" button to start the backup process.

2.2 Rear Panel

[8CH (W)360x(H)66x(D)380mm]

[16CH (W)360x(H)66x(D)380mm]



No.	I/O	Functions
1	VIDEO-IN	Camera Input from CH1 upto CH16 (Auto-detect NTSC/PAL)
2	LOOP OUT	Loops through output from CH1 upto CH16
3	VIDEO OUT	Composite Output
4	SPOT O UT	Progra mmable digital spot output
5	AUDIO OUT	Audio out 1 (Blue) : Main audio output (amplifier) Audio out 2 (Green) : Two-way Audio output
6	MIC IN	Microphone input
7	VGA	D-sub 25pin VGA Output
8	HDM I	True HDMI Output
9	USB	2.0 USB ports (mouse, backup, F/W update)
10	Ethernet	Gigabit Network port (10/100/1000)
11	RS-232C	Serial port for external devices
12	PTZ / KEYBOARD	2 x RS-485 for PTZ cameras and keyboard controller
13	ALARM IN	Alarm Input
14	Alarm Output	Alarm output (2 relay output and 2 TTL outputs)
15	AUDIO IN	Audio input (amplifier)
16	Power On / Off Switch	Power switch On/ Off
17	POWER	Main power supply connection (Default : 12 V, 6.67A)

NOTE Carefully check whether the specification of the peripheral devices matches the DVR's specification.

2.3 IR Remote Controller

In order to use IR Remote Controller, the ID of the IR Remote Controller must be same as the ID of the DVR.

(Default ID # for DVR and IR Remote Controller is "1".)

If you have more than two DVRs, you are able to control them individually with just one remote controller by setting up 'Remote ID'. (The Remote ID is adjustable from '1' up to '8'.)

The function buttons of the IR Remote Controller are as below.

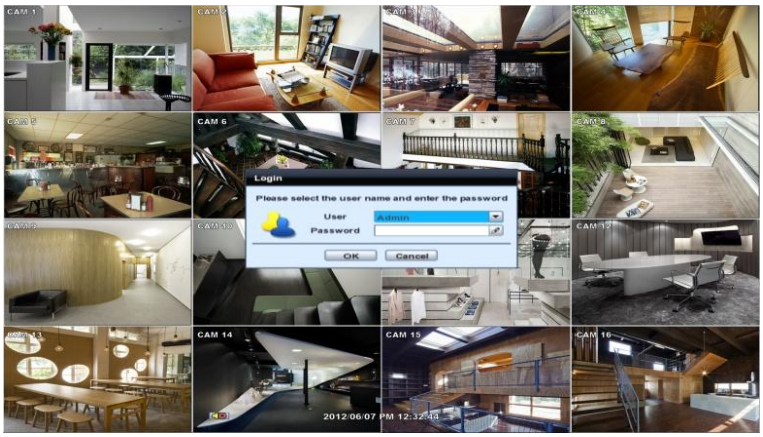
No.	Functions
1	Instant (Emergency) Recording Button
2	Numeric Button
3	Auto-Sequence Button on Live Display Mode
4	Freeze Button
5	Call Monitor Button
6	Channel Selection Button
7	Instant Playback Button
8	Search Button
9	OK (Select) Button
10	Audio Mute Button
11	Playback Button on Search Mode (Fast Backward/Playback/Stop/Fast Forward)
12	Exit Button
13	Display Mode Button
14	Zoom Button
15	Bookmark Button
16	Zoom In & Out Button
17	Backup Button
18	PTZ Button
19	Direction Button (Up/Down/Right/Left)
20	Menu Button
21	ID Select Button (DVR1 ~ DVR8)

3 OPERATION

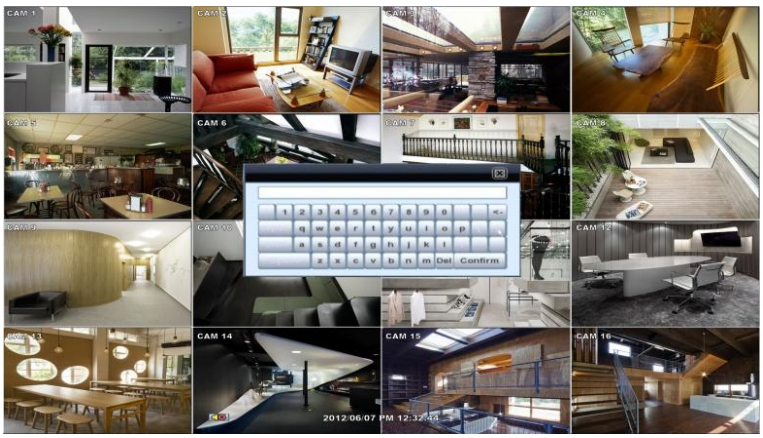
3.1 User Log-in

Check the power connection. The system can be used after power-on.

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.



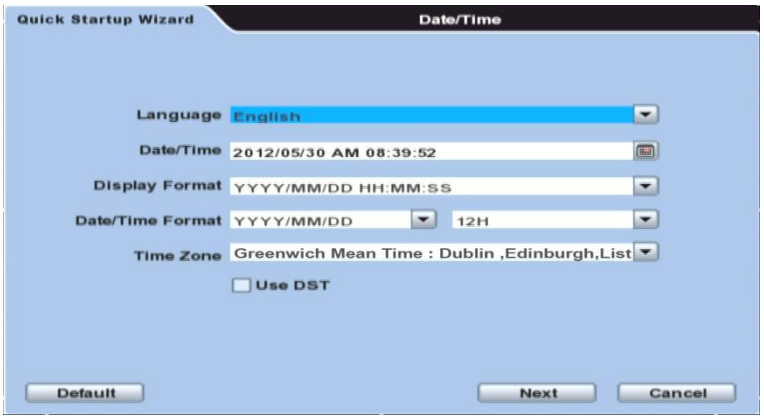
Enter the <Admin> or <User> password which had been set by using the virtual keyboard.

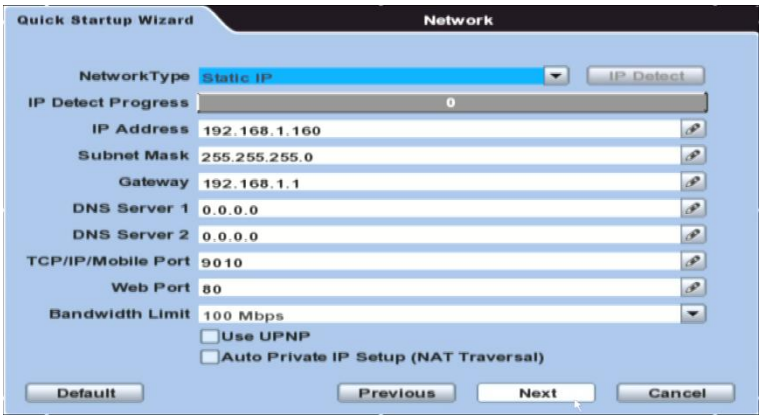


NOTE 1) <LOGIN> window will be permanently displayed in monitor as above picture until user logs in with the right ID and password.
2) If it is set as Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

3.2 Quick Startup Wizard

Quick Startup Wizard is specially designed to make it much easier for the major DVR settings such as Time/Date setup, Record setup, Network setup and Quick setup. When the DVR boots up, the Quick Startup Wizard operates automatically. It can be disabled by setting in the main menu.





3.3 Live Display Mode

3.3.1 Full HD(1080p) Live Display

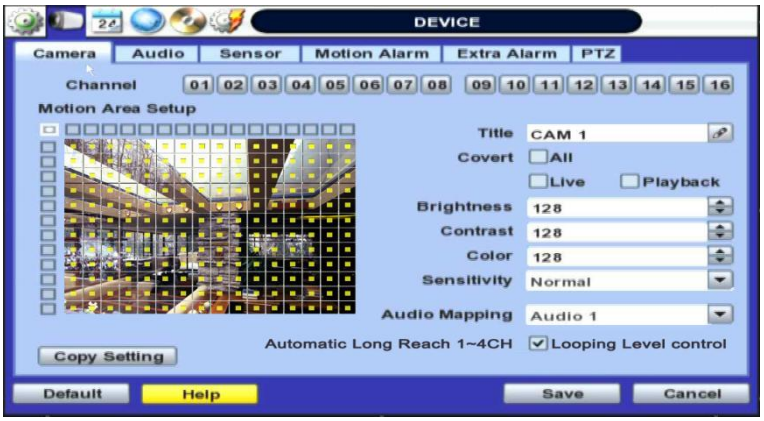
Full HD Live Display can be supported in live mode by using its HDMI and VGA output.

NOTE In playback mode, the maximum resolution is 960x480 / 960x576(NTSC/PAL).

<Full HD Live Display>

3.3.2 Automatic Long Reach (Built-in 4CH)

The adjustable 4CH built-in Long Reach Video Amplifier enables to extend the distance coverage upto 900m between camera and DVR. (From CH1 to CH4 only)



NOTE Click to enable/disable Looping level control for very video quality by install condition. When Long reach are enabled by distance, it may effect on video looing output

3.3.3 Channel Selection

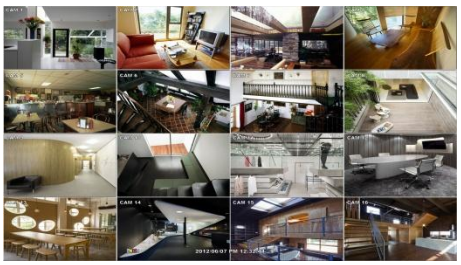
CH selction can be done by CH1~CH16 buttons and display mode can be changed by MODE button.

The live images can be displayed on real-time in 1, 4, 9, 16 screen. Whenever the left/right arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.

[1 Ch]

[4 Ch]

[9 Ch]



[16 Ch]

To select channel by mouse, click target channel to display in full screen live mode. Return to previous display mode is click the screen again. Pop-up menu will be displayed by right mouse click.

NOTE To properly select a channel using the mouse, the user is required to perform a slow and clear click of the left mouse button.

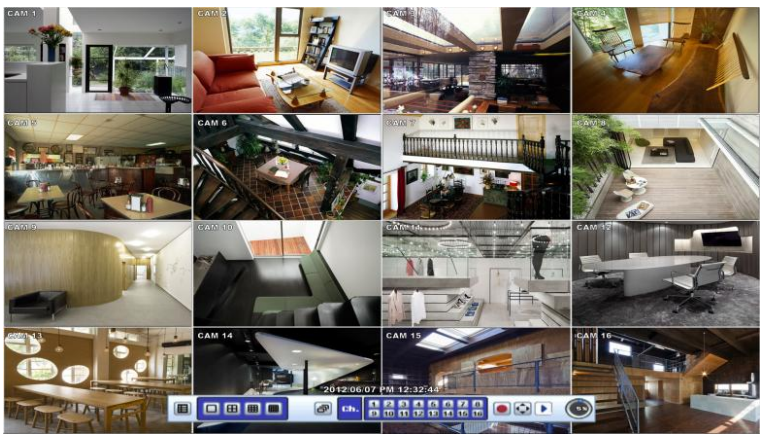
3.3.4 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor.

Icon to be shown at Left-upper corner on each channel screen		Icon to be shown at Left-bottom corner on full screen.	
C	Continuous Recording	SEQ	Sequence display on
M	Motion Detection Recording	ZOOM	Digital zoom on
S	Sensor Activating Recording		Audio Channel
C+M	Continuous+ Motion Recording		
C+S	Continuous + Sensor Activating Recording		
M+S	Motion Detection + Sensor Activating Recording		
C+M+S	Continuous + Motion Recording + Sensor Activating Recording		
C	Emergency Recording		

The sliding menu for display will be appeared when mouse cursor move into bottom and right click of mouse enale to access pop-up-menu.



Red Circle icon button means "instant (emergency) recording", which is useful to urgently start recording. In emergency recording, the system follows the panic record settings. The default settings for panic record is 30(25)FPS @ 960x480(576) Resolution for all channels. If you want to change the panic record settings for each channel, please go to RECORD → Panic Record.

Joystick icon button means "PTZ" mode, which is useful to instantly switch to PTZ control. In PTZ mode, user can move pan/tilt and zoom-in/out by moving the mouse pointer, like a virtual joystick.

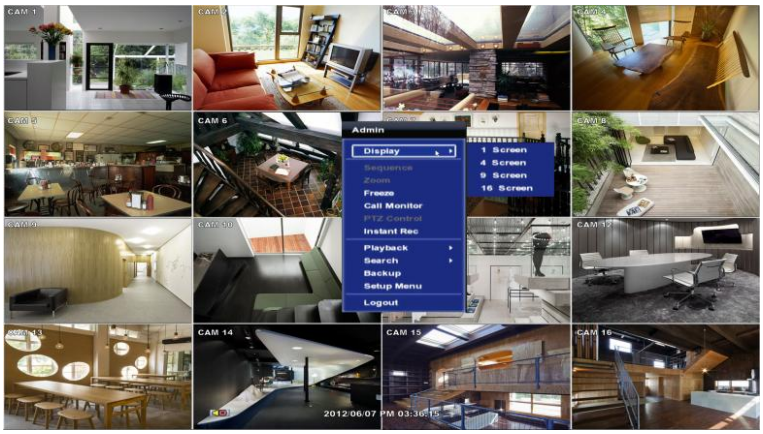
User can click the right-forwarded arrow button to automatically playback the latest video clip.

Circle icon button means the HDD usage percentage by video recording. If it shows 60%, then 60% of HDD space has been used up for recording.

NOTE	If you cannot find any colored-mark in the top right corner of the live screen mode, then it means that the system does not record any image. In this case, you need to check recording schedule or camera of the main setup menu.

3.3.5 Pop-up Menu

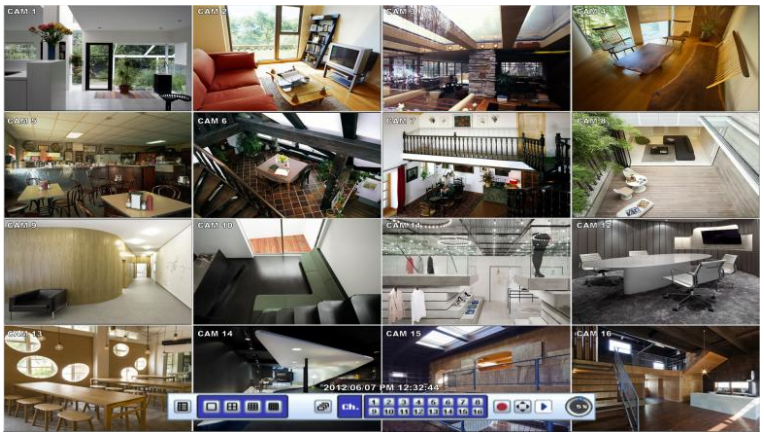
User can click the right button of the mouse to pop up sub-menu as shown below.



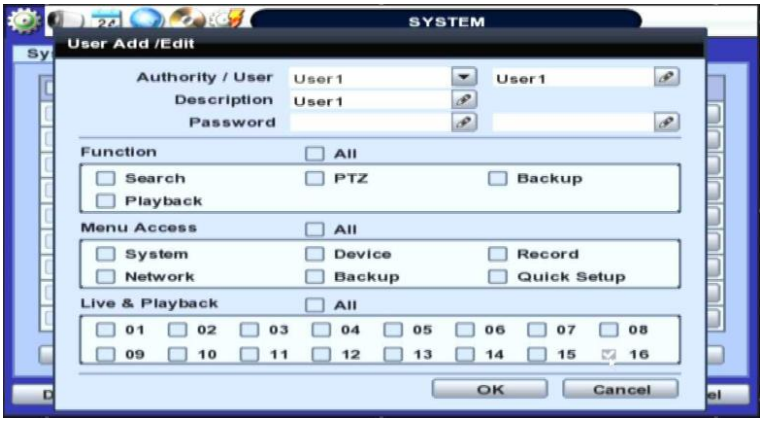
When "SEQUENCE" is selected, icon is shown on the bottom right corner of the screen, and display screen will be sequentially changed.

When "ZOOM" is selected on full screen mode, digital zoom function is activated and icon is shown and zoomed area will be displayed on the bottom right corne. In zoom pop-up menu, the user can move a yellow box by using the mouse to drag in the desired area of the camera to zoom. In order to go back to live display mode, please click "Zoom" again.

When a camera is disconnected, a warning sound may be generated depending on the system settings.



Admin user can set different level of authorization for each user. If a certain user is not allowed to view a certain live and playback channel, then no image appears on the display screen as shown above.



3.4 PTZ Operation

User can go to PTZ mode by clicking right button of mouse and selecting "PTZ" in the pop-up menu as shown below or by selecting the joystick button in the menu bar located on the bottom of the main screen.

In PTZ mode, user can control PTZ operation with USB mouse.

While pressing the left button of mouse, user can drag the mouse pointer to up/down or left/right to move pan/tilt position of the camera. If user moves the mouse pointer far away from the center position of the main screen, the PTZ camera moves at faster speed. The user can also zoom-in/out by rolling the wheel of mouse up or down.

NOTE Full PTZ functions are available by using USB mouse, IR remote control, or keyboard controller

For focus control in PTZ screen mode, the user can right-click using the mouse to get the pop-up menu as shown below. Default mode is to “ZOOM”. The user can select “FOCUS” to switch the wheel function of mouse from zoom-in/out to focus. This will change the default behavior of the mouse wheel.

The user can also select the preset button or exit PTZ screen model.

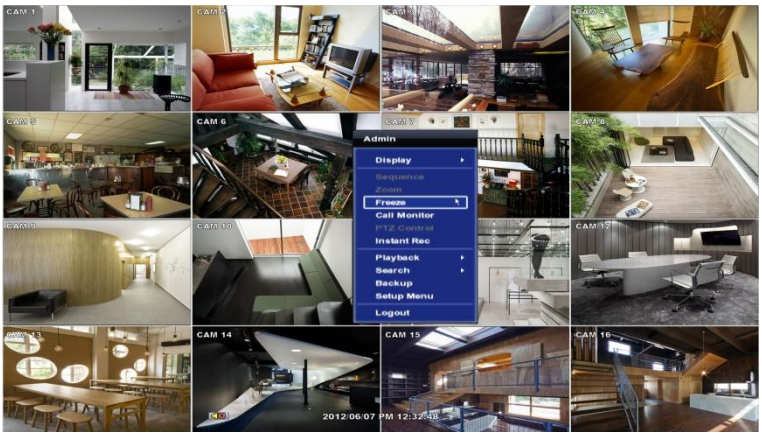
NOTE	User will see numeric pad to select “Preset” number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the max supported by the PTZ may be less

User can automatically switch PTZ camera positions according to the defined of preset setting by using GUARD TOUR function. The connected PTZ camera must support touring functions. “GUARD TOUR” on the pop-up menu can be enabled after the channel that the PTZ camera is connected to is changed to full screen. Please make sure that PTZ camera setting is correct, otherwise, “GUARD TOUR” is shown as disabled.

CAUTION	Depending on PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval setting to a value that allows for the cameras to finish its Pan & Tilt.

3.5 Freeze Mode

Press FREEZE button on the front panel, or click the right button on the mouse and select the Freeze mode while viewing a live image. In the Freeze mode, the image pauses; the date/ time information does not; and the system clock continues running. Press FREEZE to pause the live view. To resume the live view, press FREEZE again, or click the right button on the mouse and select the FREEZE again.

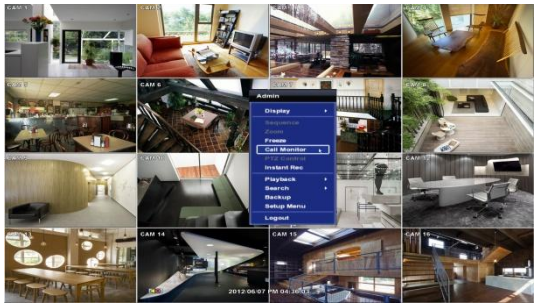


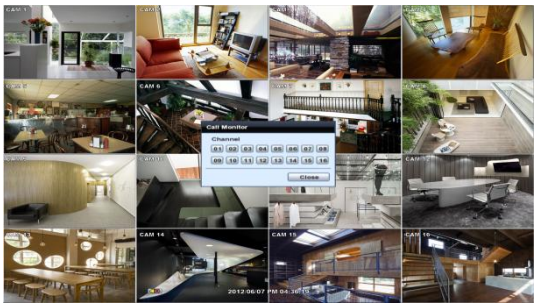
3.6 Call Monitor Operation

Press the CALL MON button on the front panel, or click the right button on the mouse and select the CALL MONITOR in order to enter call monitor control mode. The numeric panel will pop up at the center of the screen.

Click the specific channel button on the numeric panel to display full screen mode out of assigned spot out channels.

▪ Press the close button on the bottom of the numeric panel. It will go back to the previously programmed spot monitor mode.





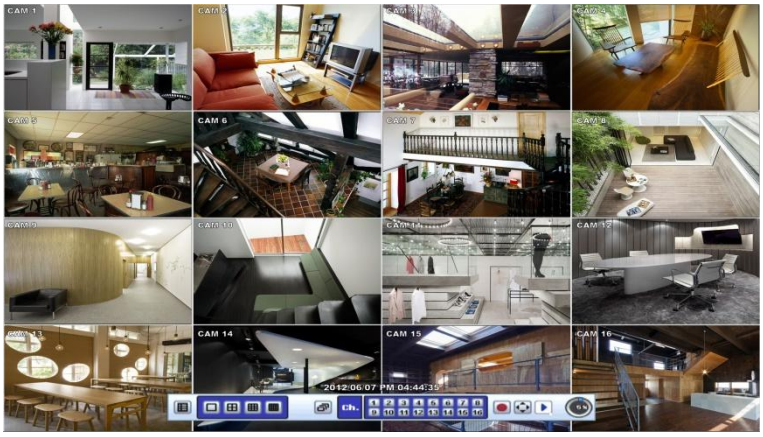
NOTE - A spot out monitor displays another spot out monitor's video in full screen through the function, call monitor.
- In spot sequence setting mode, if Call monitor is selected, spot sequence stops and selected channel pops up.
- While call monitor runs, if a channel event happens, Call monitor stops and the event pops up.

3.7 Playback of Recorded Video

To play a recorded image, press the Play button from the Front Panel or IR Remote Controller.

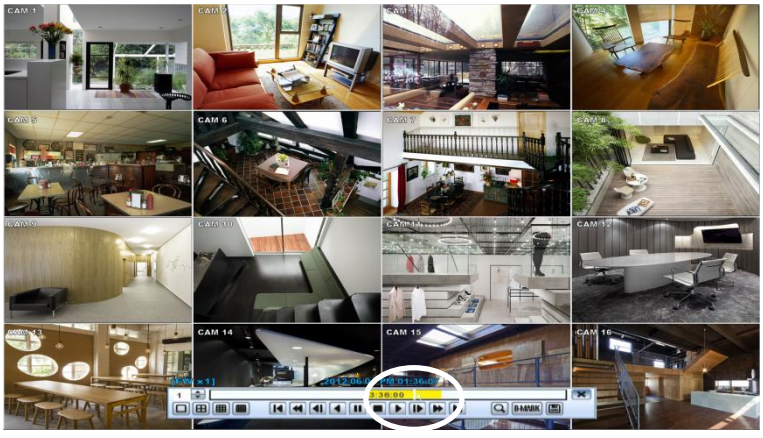
It is easy to use the USB mouse to playback recording files. The recorded files can be seen backwards or forwards. Press the rewind and fast-forward buttons, and the playback speed can be controlled in steps of 2, 4, 8, 16, 32 times real time when playing backwards or forwards.

User can click playback button to automatically play the latest video clip. It can be performed by pop-up menu and playback button in front button



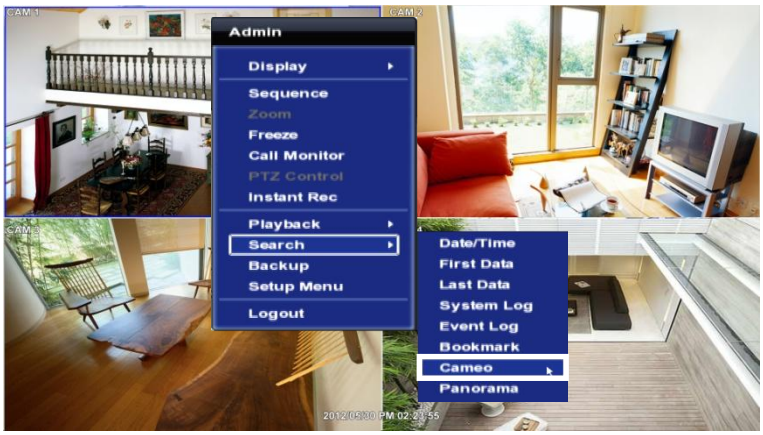
The picture below shows the system playing back a video.

In playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.



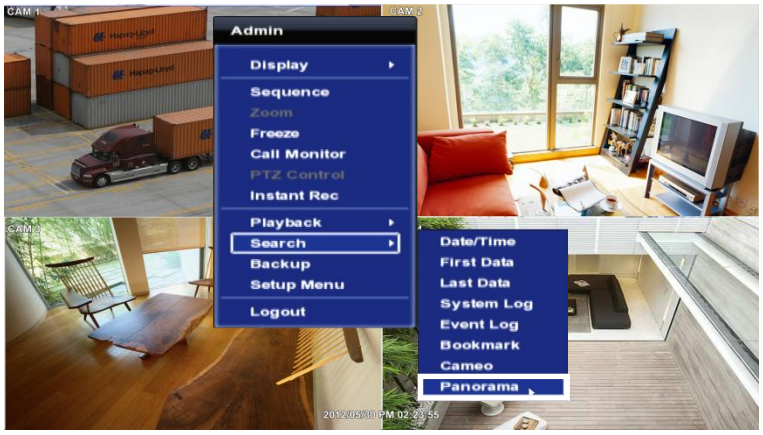
3.8 Simultaneous Live and Playback (Cameo)

1Channel playback can be displayed in live view mode simultaneously. It's so called, Cameo function. In live view mode, mouse-right click on the channel that is desired to playback and then select Cameo to activate this function.



3.9 Panorama Search

It will display frame by frame for the selected channel to bring a detail search. In live mode, mouse-right click on the channel that is desired for Panorama search and then select Panorama to activate this function.

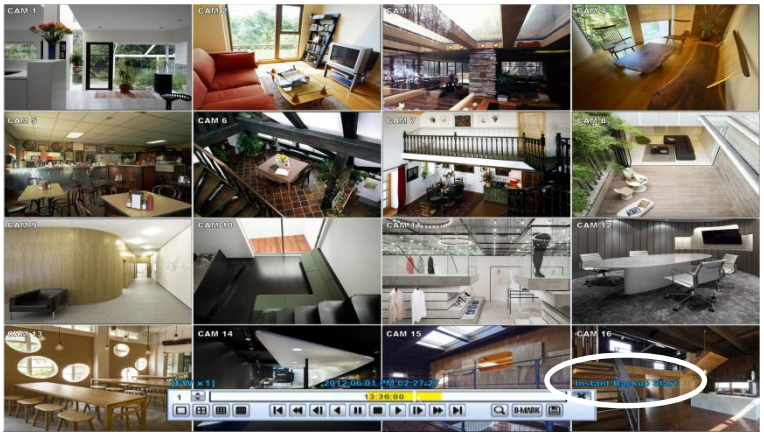


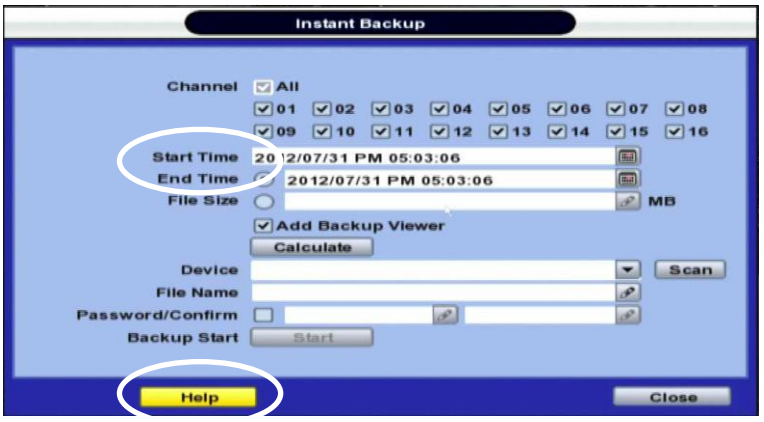
3.10 Quick Backup during Playback

User can easily archive video while viewing the video playback.

In playback mode, user can press and hold "I.BACKUP" button on the front panel to set archive "start time". After pressing this "I.BACKUP" button, user will see "INSTANT BACKUP START" on the bottom right of the playback monitor. Once "INSTANT BACKUP START" message is shown, user can keep playing back video until user wants to finish archiving and then press and hold the same "I.BACKUP" button again to set backup "end time". The backup menu window will pop up, and user can select the backup media, like CD/DVD or USB thumb drive and execute archiving.

Press "I.BACKUP" button to set "start" and "end" time of archive during video playback.



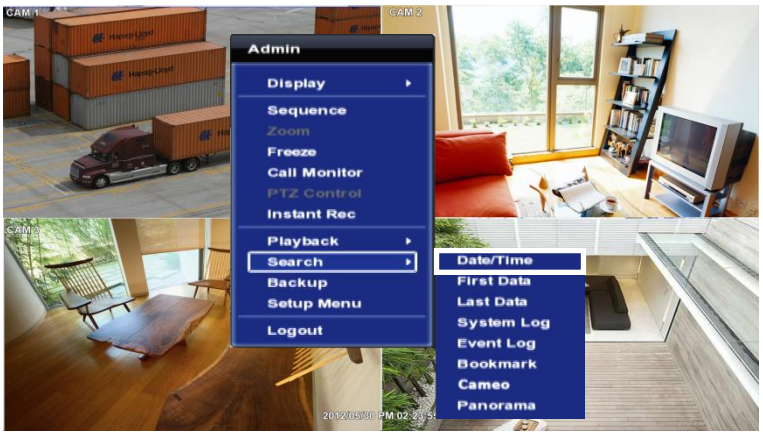


NOTE Help The "HELP" button will help you understand how to setup several important settings, even without the user's manual book. For example, if you need help about how to set "BACKUP", click "HELP" button at the right bottom of the BACKUP menu.

3.11 Search Recording Image

3.11.1 Date/Time Search

The user can select the date and time to search for a certain file within the recorded video.



In the calendar, dates in RED color means that there is recorded video data. Click a desired date in Red color. Then, the recorded data for the selected date will be shown.

Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see “the Search time” clock is also changing. When user decides the Search time, click Play to see the selected video data.

The colors of the time bar are different, depending on the recording mode.

No color - NONE
"NONE" means no recording. Even though user set recording frames to and on in "Type" in record setup menu, the DVR will not record.

Red color - Panic recording
In continuous recording mode, the system records all the time as set by "CAMERA".

Yellow color - Continuous recording

Green color - Motion-detection recording
In this mode, the system records only when motion is detected
In addition, users can set motion-recording configuration in "MOTION ALARM" at the menu setup

If user sets "MOTION ALARM" to "OFF" on the "DEVICE" and sets "MOTION" to "SCHEDULE", then the system will record when motion is detected but motion alarm is not activated.

Orange color - Sensor-activated recording
In sensor mode, the system will record when a sensor is triggered only during the dwell time as set in "SENSOR" of the "DEVICE" menu.
If user sets "SENSOR" to "OFF" in the "DEVICE" and sets "SENSOR" in "SCHEDULE", then the system will not record anything even though a sensor is triggered.

Sky Blue color - "Continuous" + "Motion detection" recording
The system records all the time by "continuous" as set by the "CAMERA" in the "RECORD" but will switch recording mode to the motion configuration specified by "MOTION ALARM" in the "DEVICE" menu, if motion is detected in the motion area. The system will also send a "motion event" message to the Advanced Client Software over the network.
If user sets "OFF" in "MOTION ALARM" of "DEVICE" and sets "CONT + MOT" in "SCHEDULE", then the system will record with continuous recording mode even though motion is detected in motion area.

Dark orange color - "Continuous" + "Sensor-activated" recording
The system records all the time by "continuous" as set by "CAMERA" in the "RECORD" menu but will switch recording mode to the sensor configuration defined by "SENSOR" in the "DEVICE" menu, if a sensor is triggered during dwell time. The system will also send a "sensor event" message to the Advanced Client Software over the network.
If user sets "OFF" for "SENSOR" in the "DEVICE" menu and sets "CONT + SENS" in "SCHEDULE", then the system will record with continuous recording mode even though a sensor is triggered.

Pink color - "Motion detection" + "Sensor-activated" recording

The system does not record in normal operation but records only when motion is detected as set by “MOTION” in the “DEVICE” menu and when a sensor is triggered as set by “SENSOR” of “DEVICE”. If user sets “OFF” in both “MOTION” and “SENSOR” in the “DEVICE” menu, then the system will neither record nor notify the Advanced Client Software or Central Management System.

Purple color - “Continuous” + “Motion detection” + “Sensor-activated” recording
The system records all the time by “continuous” as set by the “CAMERA” in the “RECORD” but will switch recording mode to the motion configuration specified by “MOTION ALARM” in the “DEVICE” menu, if motion is detected in the motion area. It will switch recording mode to the sensor configuration defined by “SENSOR” in the “DEVICE” menu, if a sensor is triggered during dwell time.

CAUTION **Dark Blue Color**
The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

3.11.2 Event Log

The Event log search is used to find particular event, quickly and easily.

Click play icon to play back the selected event data.

Users can copy this event list to a USB memory device in text file format.

Once a USB memory stick is inserted into the USB port, the user must press “SCAN” button to detect the USB stick and then press “EXPORT” to copy the log information to the media.

To see a particular event, move the arrow button of the Front Panel or Remote Controller to the desired time range.

The following are the categories indicated on the Event Viewer.

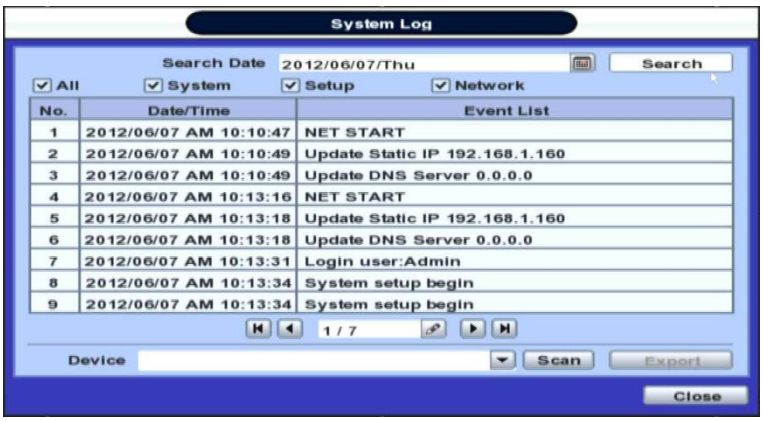
1. Alarm by Sensor
2. Alarm by Motion
3. Alarm by Video Loss
4. Alarm by Panic
5. Alarm by HDD Full

NOTE If the Alarm does not activate even though the alarm input setting has been made, check the alarm connection port of the DVR rear panel.

3.11.3 System Log

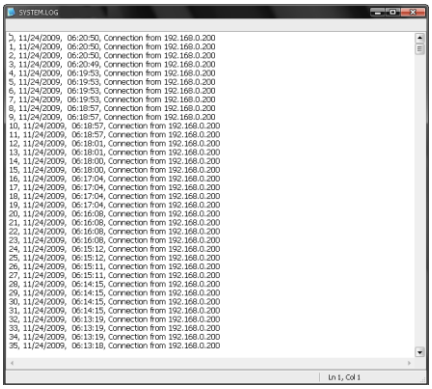
The system log search is used to find particular system log information, quickly and easily.

User can copy this event list to USB memory device in text file format.



Once export is completed, the user can find a date folder created in USB thumb drive.

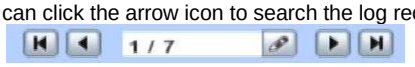
There is "system.log" file stored in the date folder.



The following are the categories indicated on the system log viewer.

1. Log by system
2. Log by setup
3. Log by network

NOTE 20 numbers of log record will be shown on one page of the <System Log> and <Event Log> window. User can click the arrow icon to search the log records on another page.



3.11.4 First Data

Go to the first screen of the recorded video. This is the oldest video recorded.

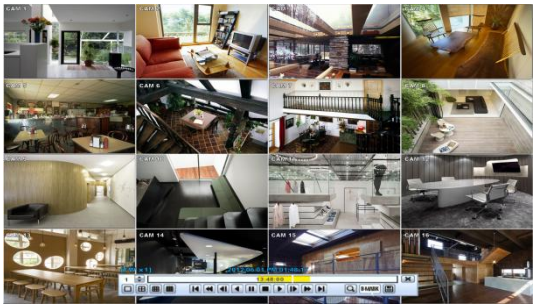
3.11.5 Last Data

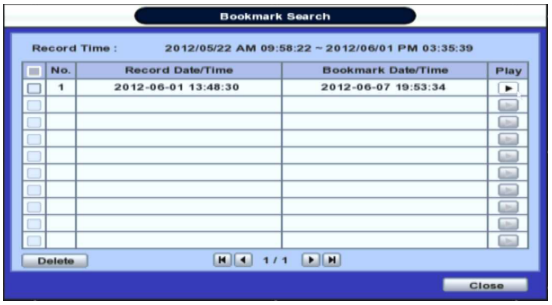
Go to the last screen of the recorded video. This is the latest video recorded.

3.11.6 Bookmark

Go to the bookmark list to search the recorded video data in the bookmark list. Users can make their own bookmark list very simply by click

button, during playback. When you do bookmark search, you can easily playback the bookmarked video data by clicking button, right next to each list.





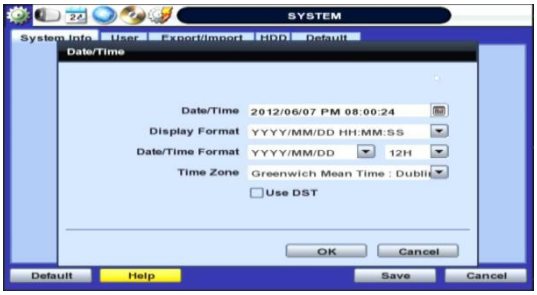
NOTE User can press “SEARCH” button on the front panel to get the SEARCH pop-up menu as shown above. In this menu, full search functionality is controlled using the front panel key buttons.

3.12 DST Setting and Screen Saver

DST starts at 2:00 local time on 2nd Sunday of March, and ends at 2:00 DST on 1st Sunday of November.

During DST (Daylight Saving Time) period, DVR time clock has to be adjusted according to regional time zone. That is, the DVR time clock will be shifted by one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST finishes.

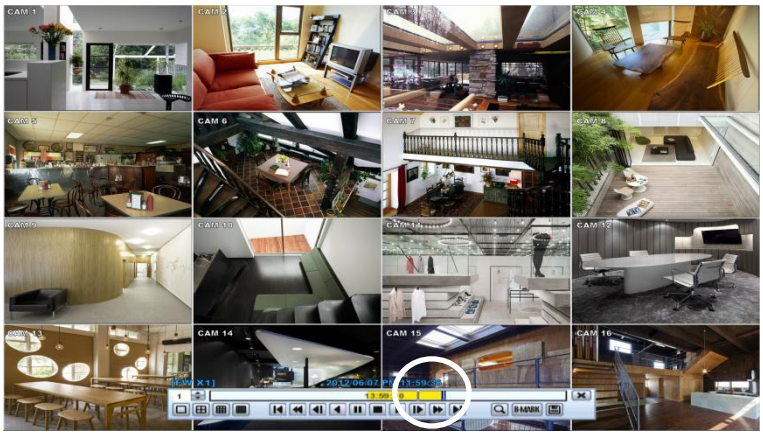
To make DST setting on the DVR, go to the menu: SYSTEM > SYSTEM INFO and click "DATE/TIME" to get the DST setting window as shown below. User can setup DST "Begin & End" time after checking "USE DST" box.



Since the clock jumps from 2:00 to 3:00, when you go to search mode, you can clearly see there is no data in all channels for one hour due to DST.

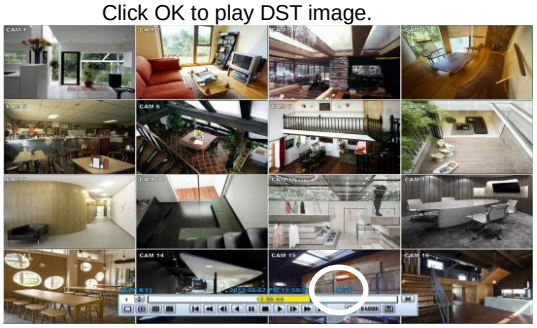
DST ends at 2:00 DST, and the clock jumps backward to 1:00 standard time on 1st Sunday of November.

When DST finishes, there is an hour of overlapped video. The overlapped time video will be indicated in a blue color in the Intelli-Search Bar during playback mode.



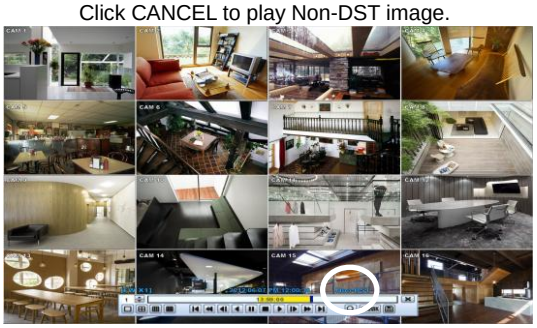
When user click on such overlapped period, a message titled “Recorded video Selection” will pop up. The user can then select whether to play DST data or Non-DST data.

Click OK to play DST image.



[“DST” image is displayed on screen]

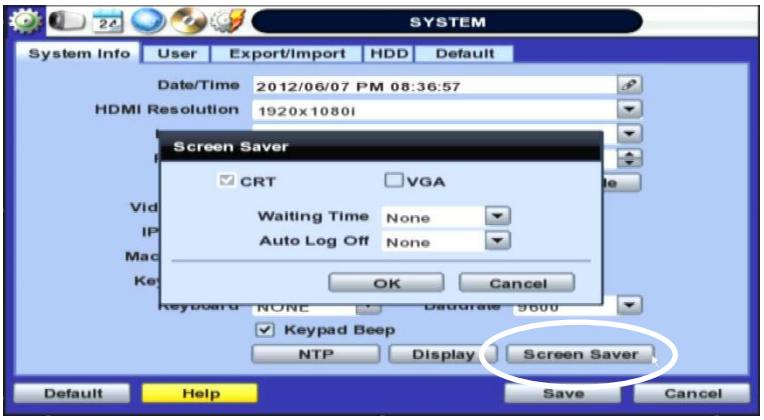
Click CANCEL to play Non-DST image.



[“Non-DST” image is displayed on screen]

To make SCREEN SAVER setting on the DVR, go to the menu setup: SYSTEM > SYSTEM INFO and click “SCREEN SAVER” to get the SCREEN SAVER setting window as shown below. Users can select CRT and/or VGA by checking the boxes. Users can set the WAITING TIME for when the monitor will automatically turn off.

Users can turn on the selected monitor by clicking a mouse, pressing any frontal key buttons, or pressing any buttons on the remote controller.



NOTE WAITING TIME: Users can select the WAITING TIME from NONE, 1,2,3,4,5,6,7,8,9,10,20,30,40,50, and up to 60 MIN. The SCREEN SAVER will not work when either WAITING TIME is set to “NONE” or both SPOT and VGA checkbox are unchecked. SCREEN SAVER may not work, during system upgrade, HDD format, or data backup process. The system continues to record while the monitor is turned off.
When it comes to the “AUTO LOGOFF” setting, please refer to the USER setting.

4 SETTING

General setting structure consists of "System", "Device", "Record", "Network", "Backup," and 'Quick Setup" as shown below.

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<BACKUP>

<Q-SETUP>

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	EXPORT/IMPORT
	HDD
	FACTORY DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	LIVE STREAM SETTING
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
BACKUP	BACKUP
Q.SETUP	QUICK SETUP

4.1 System

The system menu button is selected by clicking “TOOL” on the menu bar or clicking the right mouse button.

Users can move mouse pointer from “System” through “Quick Setup” to instantly look around the sub-menus on the menu screen. Using the left mouse button, the user can select a desired category for editing.

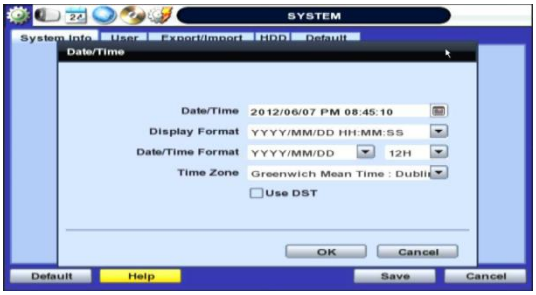
4.1.1 System Info

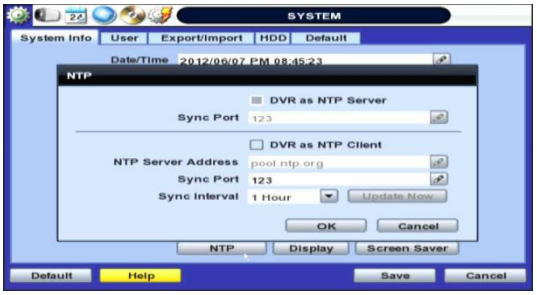
Use this submenu to check system information status or to change the system-related configuration.

Users can then move to other sub-menu of the System; System Info, User, Export/Import, HDD, and Factory Default by moving mouse pointer or pressing the front arrow buttons.

Mac address is a unique network identification number for each system.

In "DATE/TIME SET," user can activate DST (Daylight Saving Time). Select the time synchronization server and other basic settings like time zone/time format.





NOTE There are two types of TIME SYNC MODE.

1) Server Mode

The operating DVR is set as a Time Sync Server, which can synchronize the time clock of another DVR(s) connected over the same network environment.

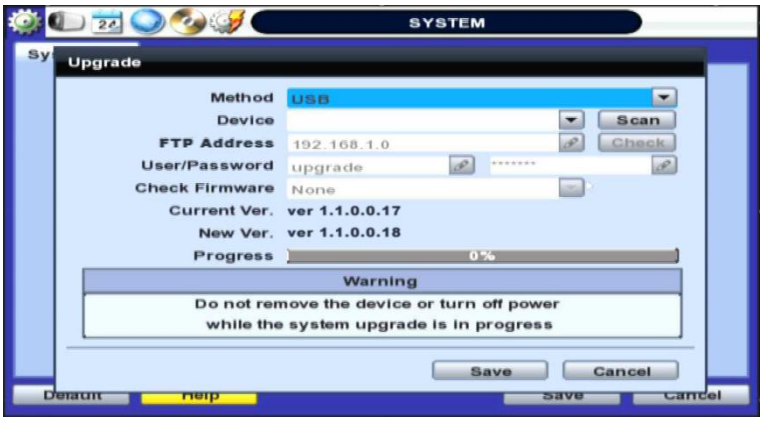
2) Client Mode

The operating DVR is set as one of the client DVR(s). Input the IP No of designated DVR, Advanced Client Software (ACS), or Central Management System (CMS), as a Time Sync Server in "SYNC SERVER"; and then its time clock is synchronized with Time Sync Server by the setup time in "SYNC CYCLE".

Keyboard ID: users must setup Keyboard ID to match the ID setting in keyboard, if user wants to use a keyboard to control the DVR. The user also needs to select the KEYBOARD model and BUAD RATE setting.

Remote ID: users must setup the Remote ID to match the ID setting in the IR remote controller in order for the remote to function.

Upgrade: Users can easily upgrade the system in "Upgrade" menu via USB/FTP server, upon the selection as shown below:



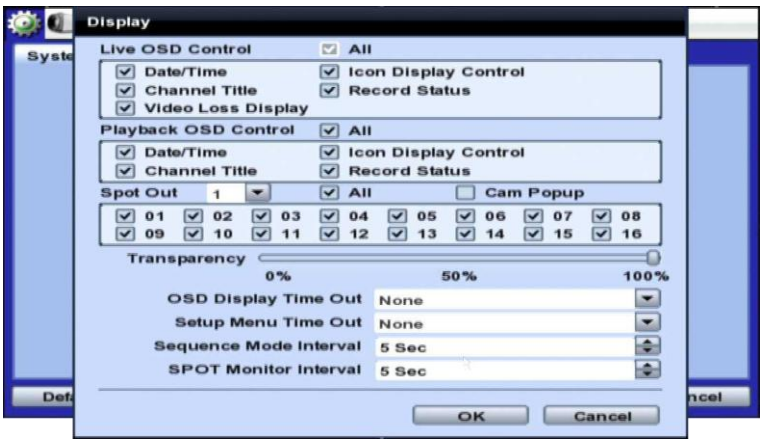
PROCEDURE	**How to upgrade system firmware by using USB memory stick** 1) Insert the USB thumb-drive formatted by FAT32 in any USB port of DVR (compatible with USB 2.0) 2) Once the system detects the thumb-drive, user can see its brand or model name in the "DEVICE" field after pressing the "SCAN" button. 3) Click "OK" to confirm. **How to upgrade system firmware by using FTP server** 1) Select FTP in the drop-down list and type a given IP address in the Host Address (FTP server IP address) field. Username and password is "none" (Default). *The FTP server address is subject to change without a prior notice. 2) Click 'Check' button then DVR will detect the latest Firmware version from the FTP server. If there is a new firmware, DVR will ask you whether you want to upgrade it or not. 3) Click 'OK' to confirm it and then click 'START' to start upgrading.

CAUTION	It is recommended to format the HDD after finishing the firmware upgrade because the data recorded by previous firmware may cause malfunction of DVR due to different format. It is possible to send the system firmware back to factory default. This may be useful if functionality takes a step backwards after a system upgrade. It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance.

In "Display Setting", user can set sequence dwell time, spot-out dwell time, spot-out channel, pop-up camera, and OSD as indicated below.

User can set Spot-Monitor output and sequence dwell time in this menu as well as show/hide OSD.

Transparency is the transparency level of the menu screen. 0% means no transparency at all.



NOTE **Spot monitor operation**

1. Spot out display mode
- It supports programmable multi display mode(Full,4,9,16) on digital spot output.
2. Spot out channel select
- Spot out monitor displays selected channels only or spot sequence displays.
** Non-selected channels are not displayed as black screen in covert
3. Spot out cam popup
If cam popup is set in Sensor, Motion notify, Spot monitor also pops up the event.
4. Spot Monitor interval
- Spot Sequence time setting

You may select On/Off for Live or Playback status display by checking a check box.

NOTE DVRs support the following video resolutions: 1024x768, 1280x1024,1280x720P,1920x1080P
User must set the proper resolution according to the monitor resolution.

4.1.2 User

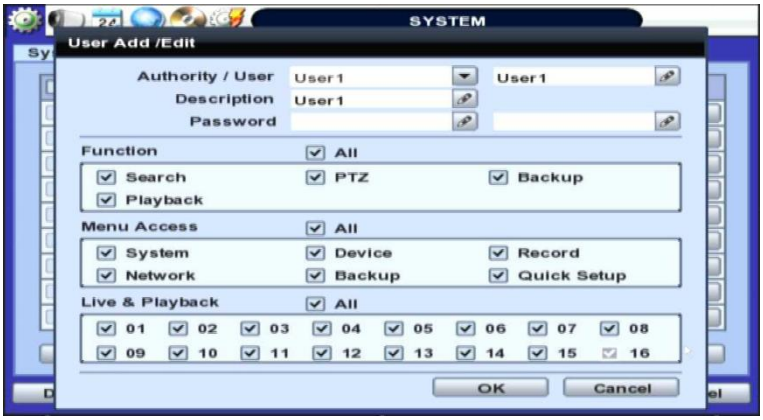
Master user of this system is always Admin with factory default of No password.

Admin must change the password of the DVR for extra security.

Admin can designate a new user with different permission levels by: functions, menu access, and live & playback.

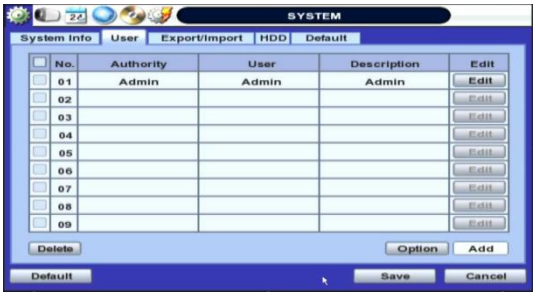
“Function” is to restrict a user to control certain functions, like search, PTZ control, backup and playback.

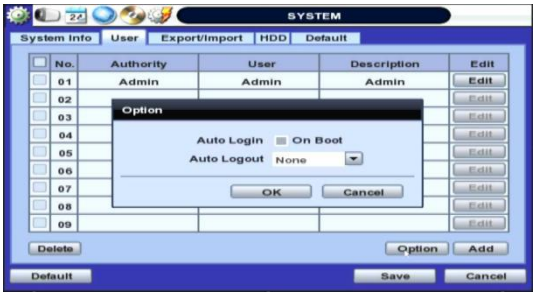
“Menu Access” is to restrict a user to access certain menu settings, like system, device, record, network, backup, and quick setup. “Live & Playback” is to restrict a user to see both live display and a playback video for a certain camera channel.



NOTE Total number of users including administrator is 9 users.

User can change the setting, so the DVR does not require login or lock the DVR control.



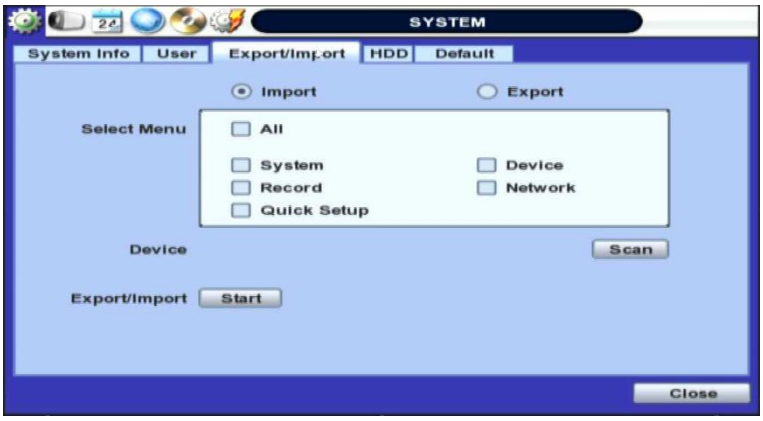


If user selects “On Boot”, the DVR will not ask for an ID and Password input again even though the system reboots.

On the contrary, if user selects Auto Log-off and sets the time, the DVR will automatically go to the live display mode that occurs after the set time. Then, the DVR will ask for an ID and Password input when user wants to control the DVR.

4.1.3 Export/Import

Users can copy and paste the system configuration values in this menu. "Export" allows the user to copy the settings for this system to USB memory devices. "Import" allows the user to recall the settings saved from other systems using USB memory devices. During import process, make sure that the firmware version of source DVR is the same as the destination DVR.



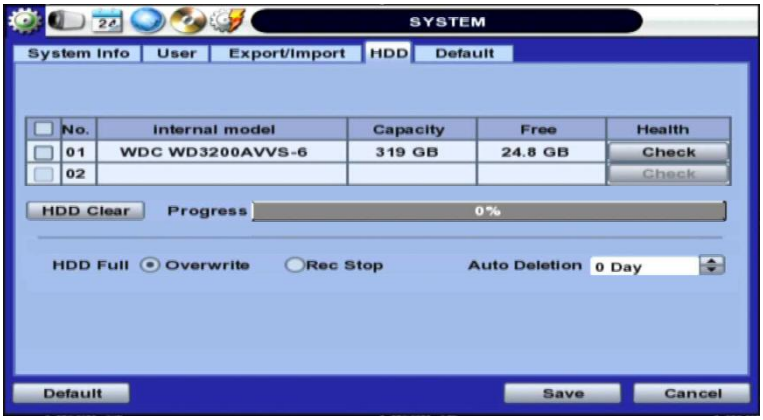
4.1.4 HDD

HDD information is displayed at the menu. (SATA HDD is used in this system.)

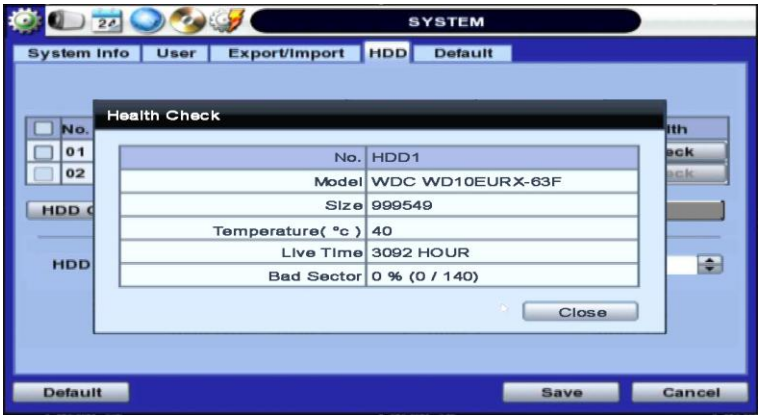
User can select "Overwrite" or "Rec Stop" when the HDD is full.

Users also can easily format a new HDD or an existing HDD for each drive. In order to format a HDD, check the checkbox and then click "HDD Clear" button in the HDD menu.

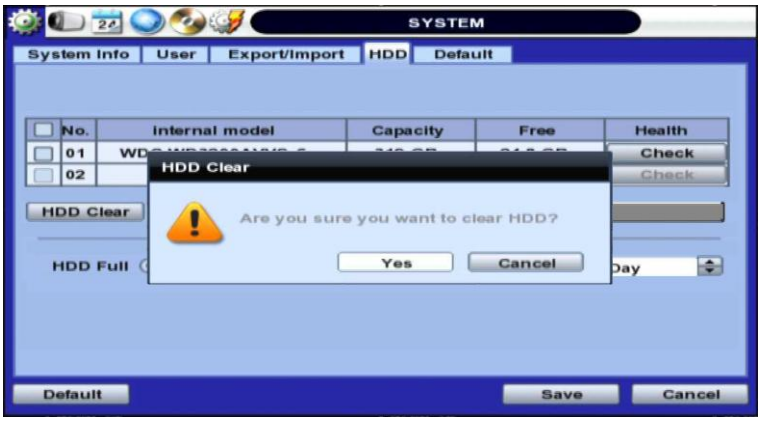
The maximum number of built-in HDD units varies across DVR models.



On the DVR system, DVR Health Check is represented in % sign as shown below. It indicates the lifetime and the temperature in Celcius of the hard disk drive.



If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system resources and then try to format again.

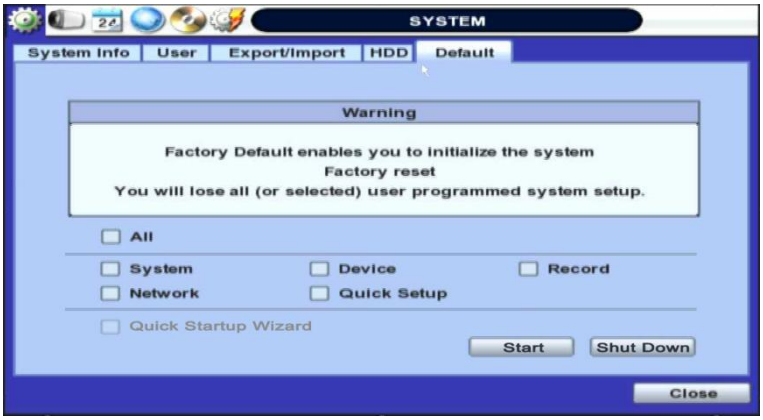


[Format completed]

NOTE 1) Formatting may take around 40 sec for 320GB, 1 minutes for 500GB, or 7 minutes for 2TB.
2) The system always reserves a maximum of 20GB of space in each built-in HDD to utilize the memory for archiving effectively.

4.1.5 Factory Default

With an authorized password, users can get the system back to factory default configuration.



NOTE	Upon clicking "Start" button and entering the admin password, all the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.2 Device

There are Seven sub menus in the Device menu, such as Camera, Audio, Sensor, Motion Alarm, Extra Alarm, PTZ and POS.

4.2.1 Camera

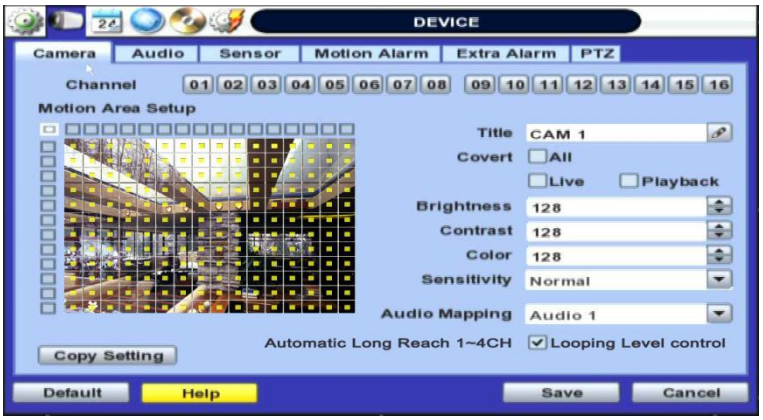
Users can easily move to the “Device” menu by selecting the icon on the top right of the menu screen.

Users can setup camera title, covert, brightness, contrast, motion sensitivity, and audio mapping for each camera.

“Covert,” also called “hidden camera” feature, hides camera display and playback as if there were no camera recording.

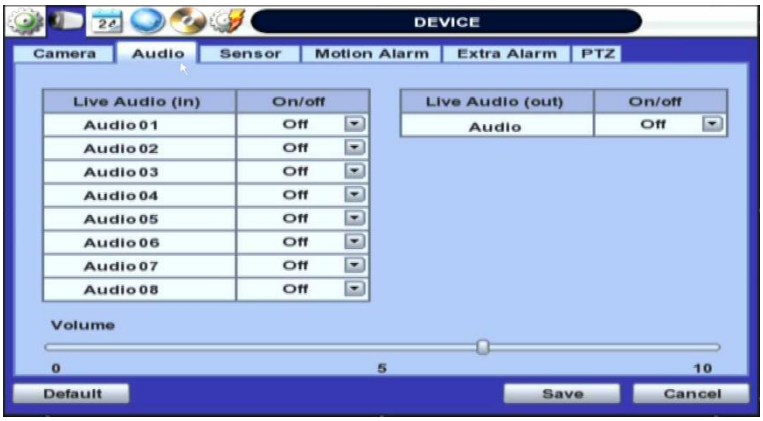
Users can apply this covert function not only to Live view, but also to Playback view.

The default motion area setup is the entire camera area.



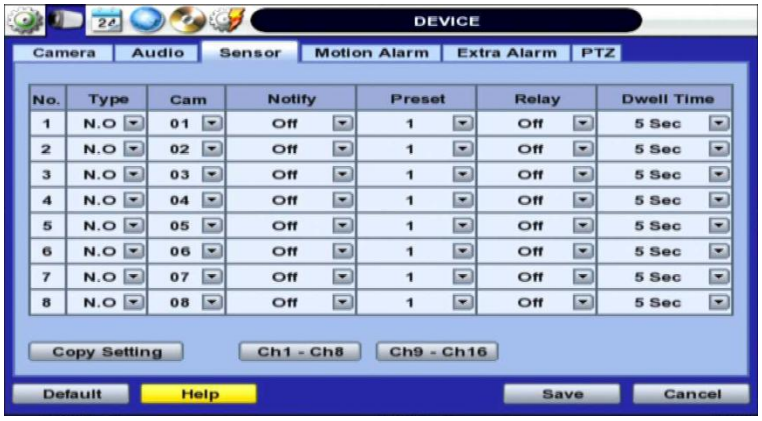
4.2.2 Audio

Users can select the audio input and output during live display and match the audio input to a designated channel. (Please refer to Section 4.3.1 Camera Record) There is a volume control panel. User can raise or drop the volume by using the volume control panel.



NOTE User can listen to the audio on both live display and playback mode depending on the setting. In addition, users can listen to the audio for both live display and playback mode through the network using Advanced Client Software (ACS), Central Management System (CMS), and/or Internet Explorer web browser.

4.2.3 Sensor



- **Type**
  OFF, N/O (Normal Open) , N/C (Normal Close) The Sensor.

- **Cam**
  Select the associated camera.

- **Notify**
  Users can select how to be alerted when a sensor is activated or motion is triggered by pressing the "NOTIFY" button. The system can generate a buzzer sound and/or make a pop-up screen for the camera in alarm.

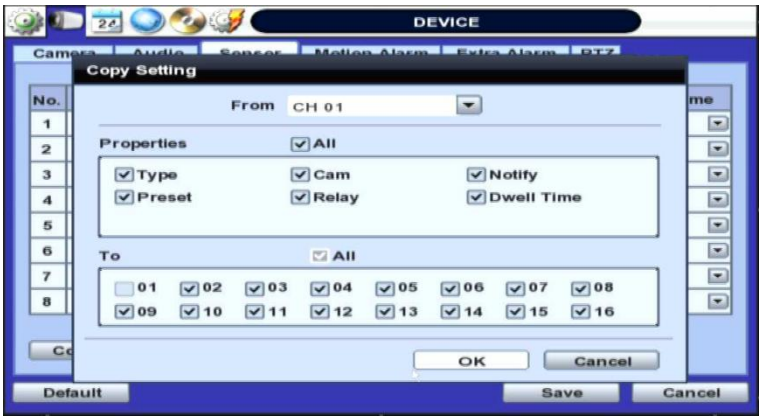
CAUTION	Relay contact can handle up to 24VDC/1A(or 125VAC/0.5A) of other devices. If connected to a circuit that is over 24VDC/1A(or 125VAC/0.5A), the system may experience problems.

- **Preset**
  User can select the camera to move to a preset position, once the sensor is triggered. (User should setup preset position in PTZ menu 4.2.6 in advance)
  In addition, users can set multi-preset with a single PTZ camera. Therefore, users can cover a multi-preset zone with a single PTZ camera.

- **Relay**
  1~2/Off Relay Output.

- **Dwell Time**
  Set the recording period from the start of sensor input activation. During this period, the corresponding camera video will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time has elapsed.

- **Copy Setting**
  Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the sensor the user wants to copy from at the “From” field. Choose the parameters such as Type, Cam, Notify, Preset, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the “To” box.



NOTE	“Sensor” here means the alarm connected to the DVR, which is triggered by physical sensor input.

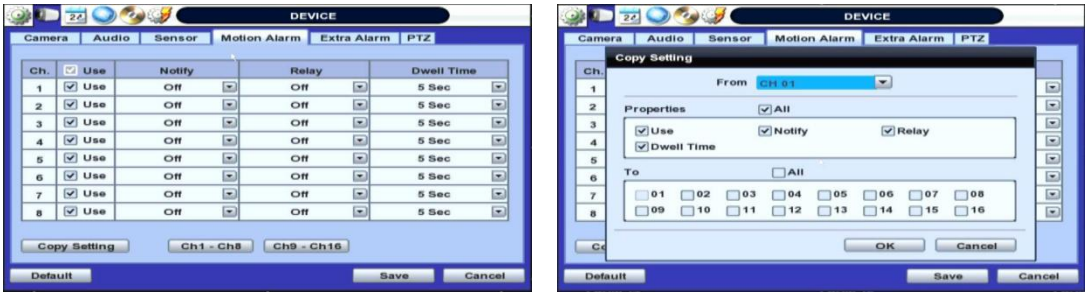
NOTE	If the sensor does not operate properly check the setting of the sensor type (N/O or N/C). The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

NOTE	“Camera pop-up” means that multi-screen live video mode will be switched automatically to single channel mode, when an alarm is triggered. This single channel video will be the channel triggered by alarm.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

An alarm signal is sent via the selected sensor-out channel.



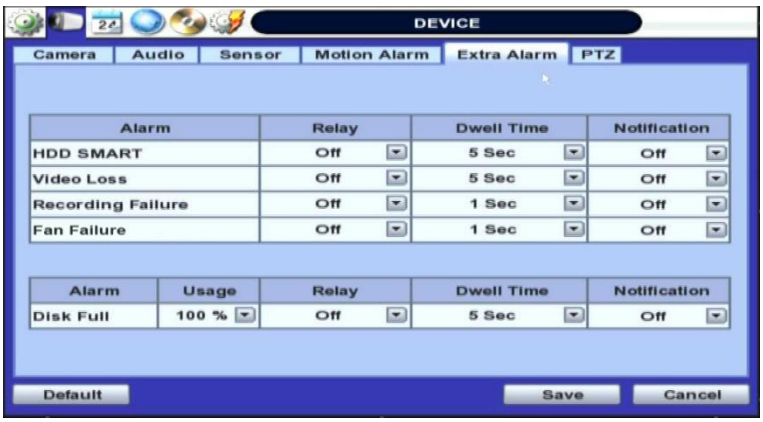
- **COPY SETTINGS**
  Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from at the "From" field. Choose the parameters such as Use, Notify, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

4.2.5 Extra Alarm

S.M.A.R.T. alarm is an alarm signal triggered when the HDD is about to be out of operation.

This alarm is created by the HDD and captured by DVR. If the HDD does not create this alarm, then the DVR also cannot capture and output this signal.



Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.

4.2.6 PTZ

Full control of PTZ camera is available in this menu.

For details, please refer to Section 3.3 PTZ Operation.

- **Protocol**

Select the proper protocol of the connected PTZ camera.

- **Address**

Set the PTZ driver address of the connected camera.

- **Check the below items for proper P/T/Z operation.**

1. Check if the protocol of the connected PTZ camera is correct.
2. Check if the communication settings, including the baud rate, of the connected PTZ camera are in accordance with the assigned value for that P/T/Z protocol.
3. Check if the address of the connected PTZ camera is correct.
4. Check if the wiring to the P/T/Z controllers are correct.

PROCEDURE	**How to setup PTZ camera with Pelco-D protocol (example)**
	1) Make sure the serial communication with the PTZ camera is through RS-485 port. 2) Select “Pelco-D” at the protocol list, and set the address. 3) Select Baud Rate to be the same as the PTZ camera 4) Click the “Save” button to confirm this configuration.

- **Preset**

The system supports the number of preset from 1 to 255.

- **Baudrate**

User can select the baud rate level from 1,200bps up to 115,200bps.

4.3 Record

Users can configure various record settings such as Continuous, Event, and Panic for each individual camera channel in the Record Setup Menu. Network Stream settings are independently configured from the Record settings in this menu as well. Therefore, the user can optimize the bandwidth used by configuring the resolution, FPS, and image quality separately.

4.3.1 Record Setup

1. Locate RECORD icon from the main menu and select it.

2. On the Record window Click on Record Setup tab.

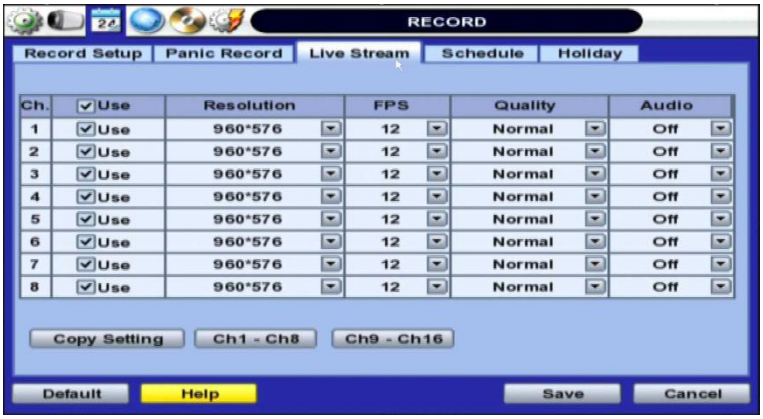
3. Choose the desired resolution, frame rate, quality and recording type by using the drop down list items. They are configured by each channel or you may use the copy setting button to apply to other cameras.

NOTE **COPY SETTINGS**

Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from the "FROM" field. Choose the parameters, such as RESOLUTION,FPS,QUALITY,Event Resolution, Event FPS, Event Quality, PreAlarm and PostAlarm on the checkbox. Check on the checkbox with the camera numbers to apply the copy setting(s) to another channel on the "To" box.

Users can also configure the Network Stream settings independently from the Record settings.

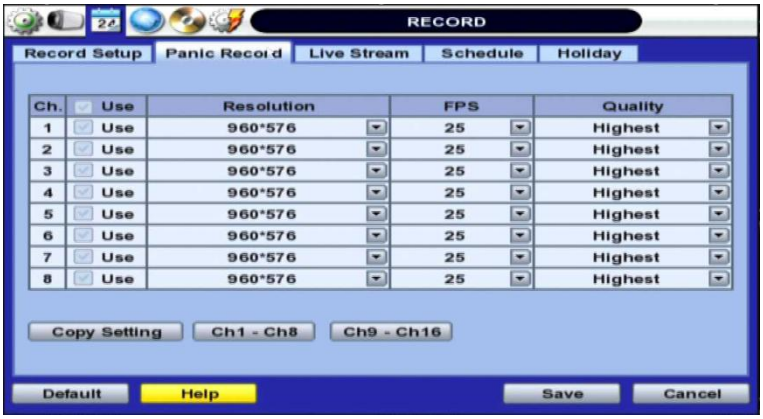
Click the “Live Stream” tap and then the Live Stream setting will be seen as shown below.



The Live Stream menu enables users to optimize data transmitted over the network by configuring the Resolution, FPS, and Quality without affecting the Record settings.

For example, users can configure 960H (960x480) resolution, 15 FPS with Normal quality for Live Stream(for Network) and configure 960H (960x480), 30 FPS with Highest quality for record.

Users also have the option to configure Panic Record settings. The Panic Record setting is intended to be used under emergency situations. You engage Panic recording by pressing the “Instant Record” button on the frontal keypad, or clicking the icon from the control panel in live mode. It is highly recommended to use the maximum resolution, FPS, and quality for this record type.

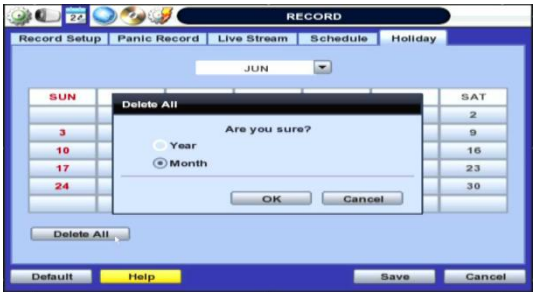


4.3.2 Schedule

You can set up the record schedule by applying a various record modes to each date and time. Simply select a record mode by mouse and drag it to the desired date and time.

4.3.3 Holiday

Users can setup a specific day of a month or day of week as a holiday as shown below. Once holiday is selected, the recording setup for those holidays will be affected by the schedule setting in the schedule.



4.4 Network

4.4.1 Network

The system has built-in web server.

- **ETHERNET**

- DVR network system

- ETHERNET LAN port

Network Type

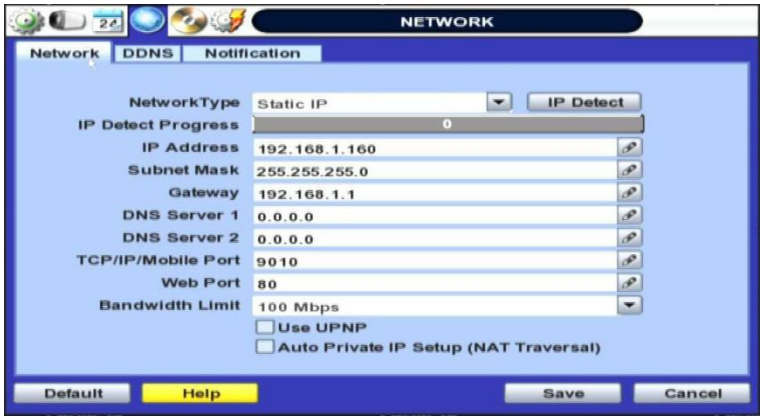
Select network connect type. Select either LAN for fixed (Static) IP or DHCP for dynamic IP.
If DHCP is selected, click 'IP DETECT' button to detect IP address information.

- **Subnet Mask**

Subnet Mask address classifies the subnet that the system belongs to. Standard address is 255.255.255.0. For more information, please consult your network administrator or your internet service provider

- **Gateway**

This is the IP address of the network router or gateway server. It is required when the user wants to connect through the external router from the remote. For more information, please consult your network administrator or your internet provider



- **DNS Server**

Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS)
*You should enter the DNS Server information in order to use internet. (Provided by your ISP)

- **TCP/IP Port**

Enter the port number to use when connecting locally or remotely.

- **Mobile Port**

Enter the mobile port number to use when connecting to mobile phones.

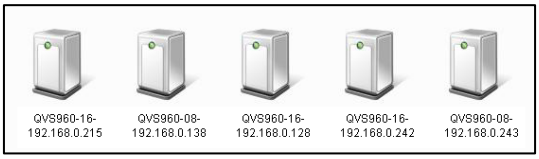
- **Web Port**

Enter the port number to use when connecting from the Web Browser.

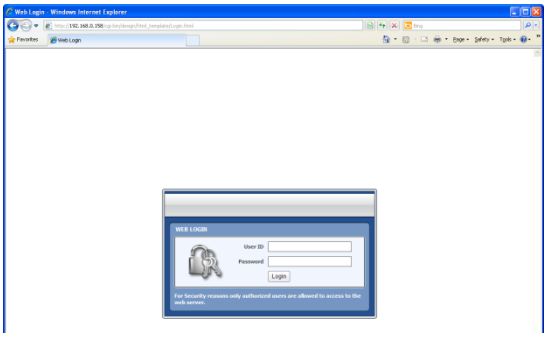
NOTE TCP/IP Port, Mobile Port, and Web Port should be a different number from each other.

- **UPnP (Universal Plug and Play) and Auto Private IP Setup (NAT Traversal)**

UPnP stands for Universal Plug and Play, which is a relatively new technology that indicates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that a PC can connect to the DVR directly by clicking on the icon representing the DVR in <My Network Places> folder as shown below. The first five characters of the file name of a detected DVR is subject to a firmware version



Simply double click on the desired icon. Then, it will open an internet browser that connects to the DVR via the remote control software as shown below. Please type in your User ID and Password to login and click 'Connect' button to connect.



- **Auto Private IP Setup (NAT Traversal)**

The UPnP NAT Traversal function will help to automatically setup a router if the DVR connects to the internet via a router.

When a PC connects to a DVR, which is not in the same local area network, a real IPO address and corresponding port number is required. However if the DVR is behind a router, the communication between the PC and the DVR will be transmitted back and forth by the router. The router will need to setup port mapping (Port Forwarding) before images from the DVR is remotely viewed on the PC. For each individual DVR, the setting needs to be done individually.

If the DVR has UPnP NAT traversal function, the setting of the router will be done automatically when it is enabled.

Just check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself.

NOTE	The system transfers video images at real-time over the network even during no record. For example, user can monitor live video even when motion has not occurred during motion detection mode.

NOTE	If there is no physical network connection, it may take a few minutes for the system to start working, since the network configuration in DHCP mode and the DHCP connection cannot be made.

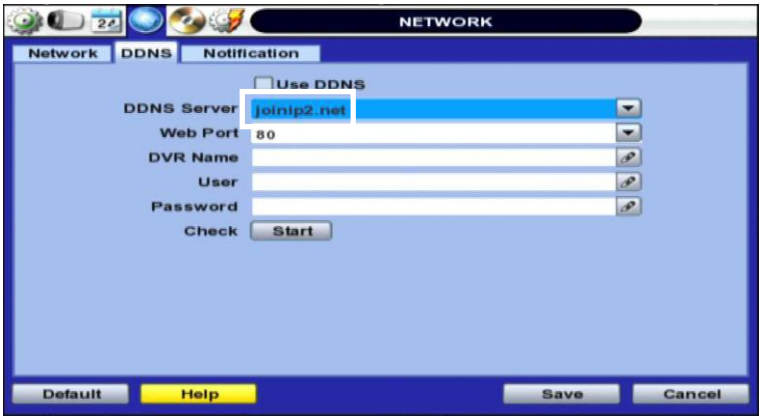
4.4.2 DDNS

The User has to mark the “Use DDNS” check box to use it.

- **DDNS Server**

joinip.net or joinip2.net is the fixed domain name of DDNS server.

User cannot change the DDNS name.



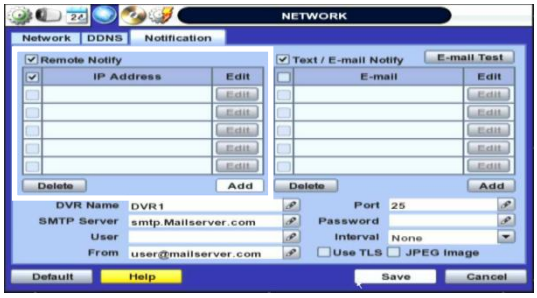
NOTE The standard DDNS domain name is joinip2.net, and users can use joinip.net or dyndns.com by drop-down list.

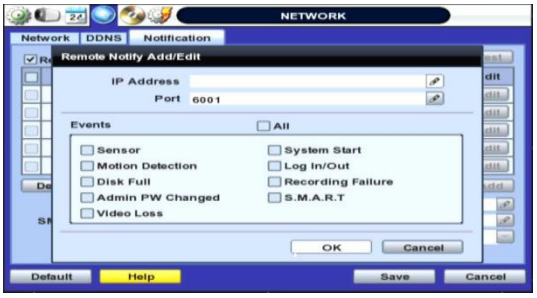
4.4.3 Notification

- **Remote Notify**

The system can notify an alarm message to the IP address of Advanced Client Software over the network.

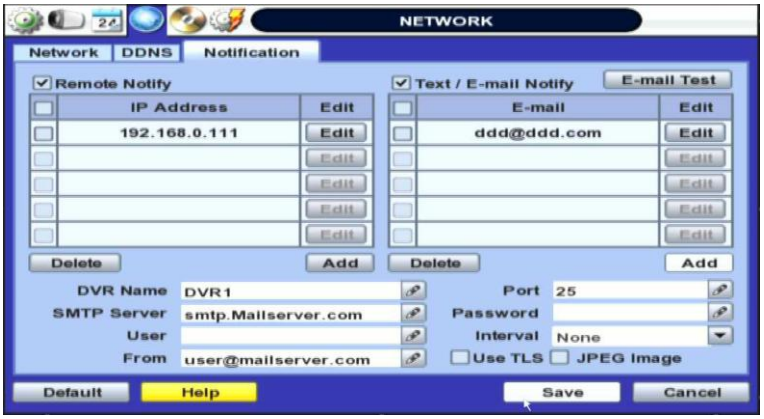
User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off.





- **E-Mail Notify**

The system can send notification to an Email address or Advanced Client Software and the Central Management System over the network. User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off. By clicking "Use TLS", users can use a public email address such as Yahoo, Google, Hotmail accounts. Type DVR name in the "DVR Name" box. The DVR name will appear in the email so that users can recognize which DVR sent an email.



NOTE Configuration's first priority is always given to "Schedule Setup " of the "RECORD" menu. Thus, the system will not send alarm message or email notification upon motion alarm or sensor even though user marks the checkbox of above event selection, unless user sets the "Schedule Setup" in the "RECORD" menu.

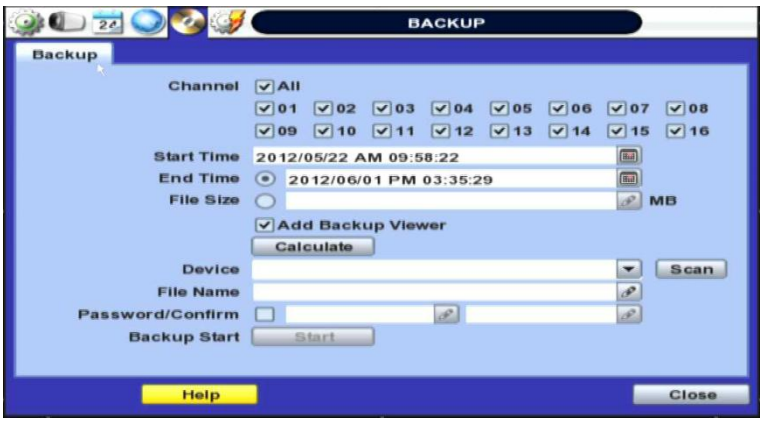
For example, if user sets "Continuous" only for "Schedule Setup " of the "RECORD" menu and marks the "All" checkbox in "REMOTE NOTIFY", then the system will not send alarm messages. In this case, user has to set "C + M", "MOTION", "SENSOR", "C+ S" or "C+M+ S" for REMOTE NOTIFY or E-Mail NOTIFY to function properly.

4.5 Backup

4.5.1 Backup

Users can archive a video clip recorded for a certain period on a selected channel or channels as shown below.

Connect an appropriate USB memory device, like USB thumb drive, USB HDD, or a built-in CD or DVD burner and press “SCAN” button to get the system to recognize it before archiving. Necessary file size will be shown before burning.



NOTE	Backup device shall be a well-known major brand of USB thumb drives formatted by FAT/FAT32 for proper backup.

NOTE	User can easily backup video in “Quick Backup” during video playback. Refer to section 3.5 for quick backup details.

NOTE	User can click the “Calculate” button to learn the backup file size before executing backup.

NOTE	User can rename the backup file name before starting backup process and also put a password in the backup file for security purpose. In order to playback the file, user should input the password.

4.5.2 Backup Video Retrieve

There will be a single file after archiving, if "Auto Player" was selected.

User can double click "Player.exe" file to open the video data file (PSF format) in the folder.

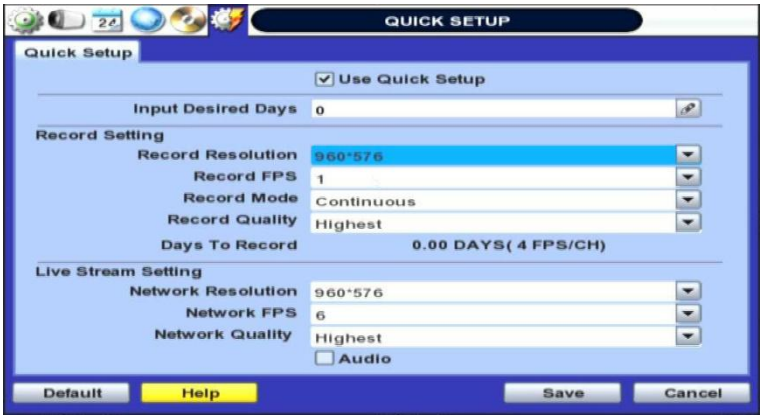
User can print out, capture a still image, zoom out, or make an ASF file format, by using the icons located on top of the player window.

NOTE User also can play the backup-video clips by Advanced Client Software and Central Management System.

4.6 Quick Setup

Quick Setup helps user make simple configuration for recording resolution, entire recording speed by frame, recording mode, and recording periods.

The system will put the first priority for configuration on this quick setup and will follow this rule regardless of configurations set in other menus. Users should not fill in the checkbox of Use Quick Setup if he/she wants to utilize full system configuration defined in the other menus.



NOTE Quick setup must be deactivated if the user requires configuration from the other menus.

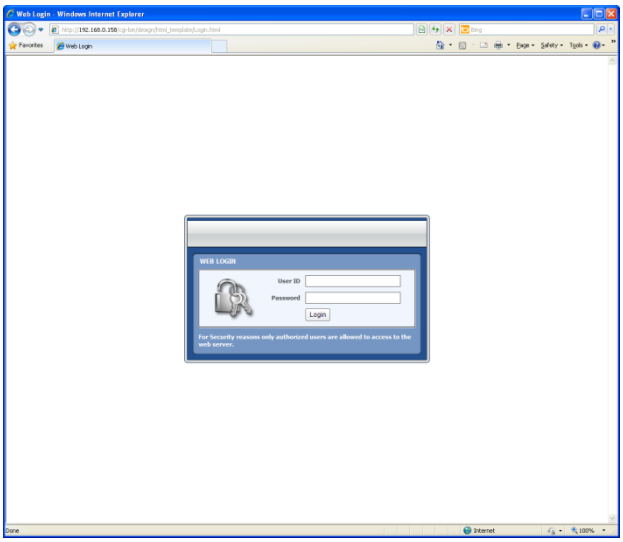
NOTE After the user marks “Use Quick Setup” to define settings, the system will ignore all other configurations set by full menus.

5 WEB SURVEILLANCE

The system has a built-in web server.
Using an ordinary web-browser over a network, users can always stay connected to the system for live monitoring, playback, or remote configuration without installing the Advanced Client Software (ACS).

5.1 Web Login

The user is required to input the correct IP address in the web browser after making the web port available in the router. After allowing the download of the Active-X file, users can find the login page view seen below. Default USER ID is "admin" and No password.



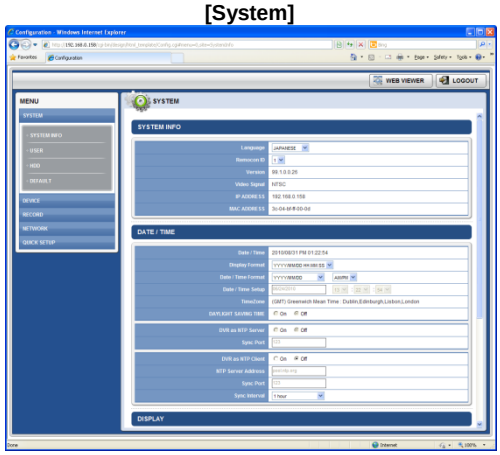
5.2 Web Configuration

Menu of Web Configuration

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	LIVE STREAM
	PANIC RECORD
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
QUICK SETUP	QUICK SETUP

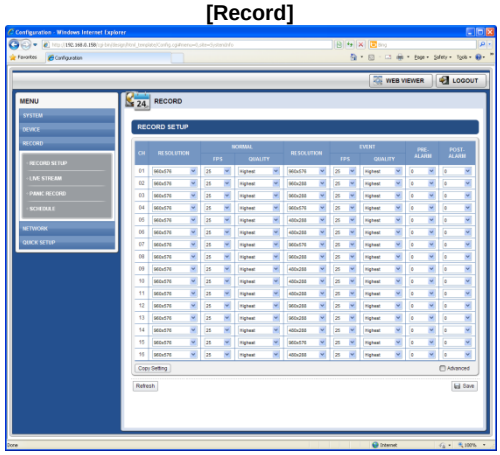
After logging in with the right ID and password, users can make various configuration changes in the Web Configuration window seen below. This Web Configuration menu is only available to the “admin” account.

[System]

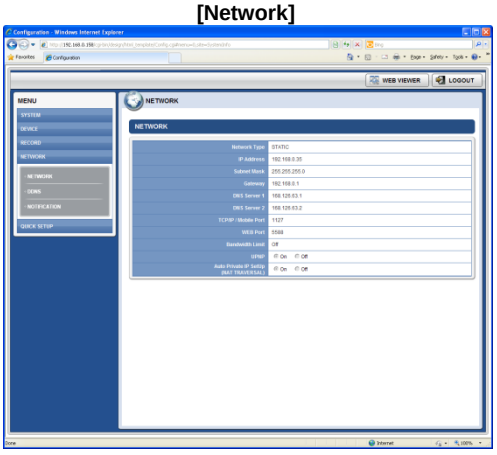


[Device]

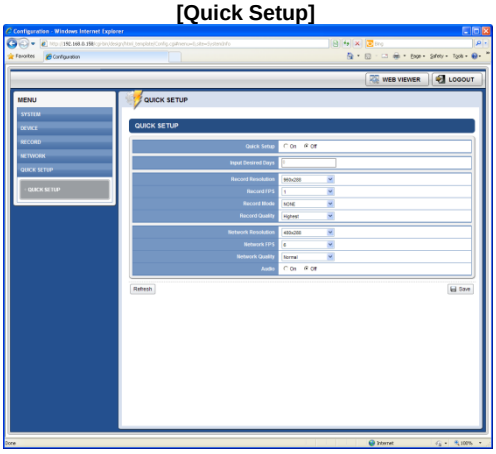
[Record]



[Network]



[Quick Setup]

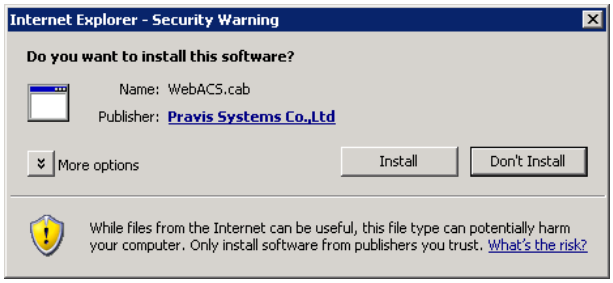


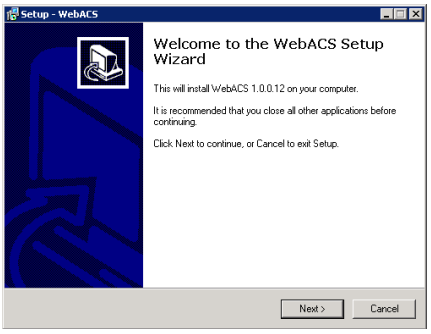
NOTE This DVR system has its own built-in web server.
This web CGI screen is directly supported from the built-in web server in the DVR, regardless of Internet connection.

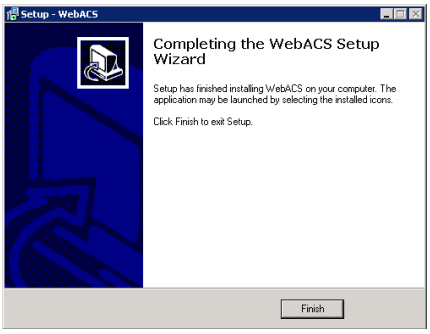
NOTE <System Reboot> enables user to reboot the system without any changes to the setup.
When the network is disconnected due to abnormal operation of the system, user can use this function and try to reconnect. However, the IP number assigned to the system may be changed due to the DHCP mode.

5.3 Web monitoring

User has to download Active-X file from DVR and install it at workstation PC before monitoring live video.

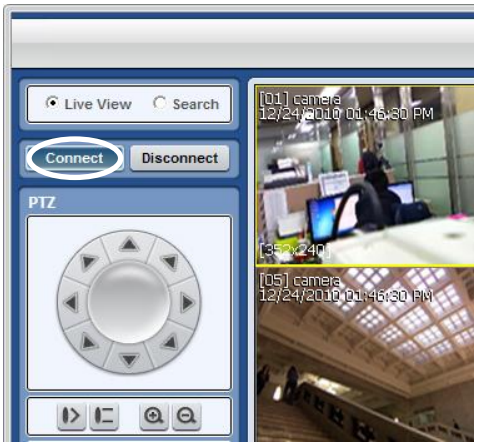




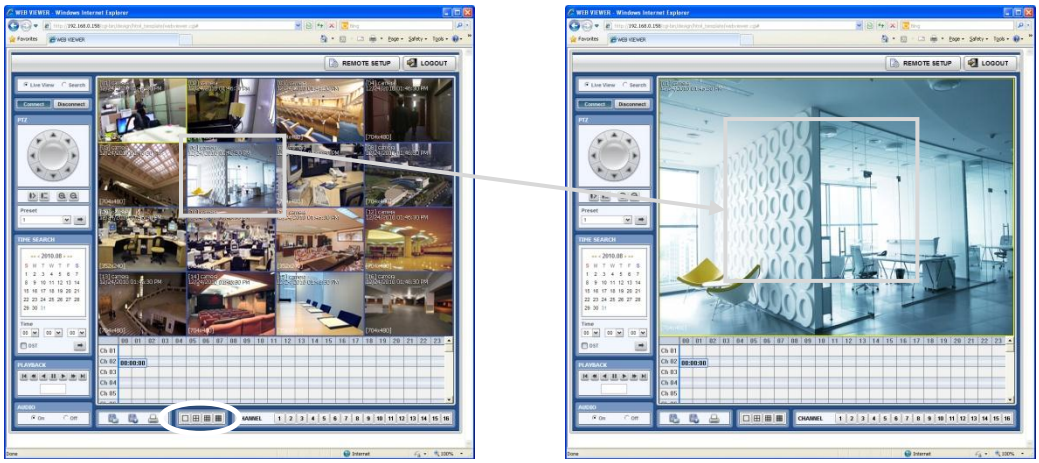


[Web Active X Install]

User can get into web monitoring after log in as shown below. In order to connect to DVR, the user has to click " Connect " button which is located at the top left corner.



User can monitor live video in 1, 4, 9 or 16 screen modes. If user wants to see single channel in full screen, user can double-click on the left mouse button when the cursor is positioned on the live video screen. User can change to single mode by clicking the mode icon located at the bottom left.

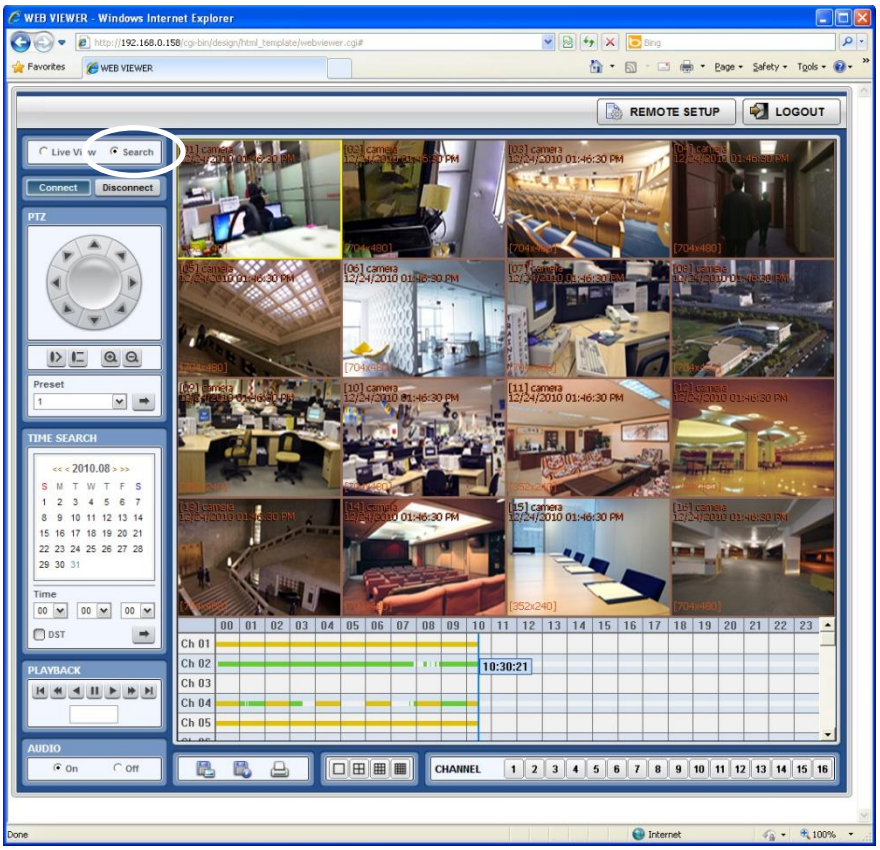


NOTE The image resolution in "Live monitoring" in this web browser is directly transferred from DVR (Live image over the web browser depends on the Live Stream value on Record mode of DVR)

NOTE If live image is not properly shown on IE web browser due to network traffic jam or narrow bandwidth, it is recommended to close and re-open the IE web browser.

5.4 Web Playback

Users can remotely playback the DVR images by clicking “SEARCH” button in the middle of bottom window. In order to connect to DVR, the user has to click “ Connect ” button which is located at the top left corner.



- **Playback Time**

Select the date and time on Time Search, located at the middle of left side of window, and click button.

- **Playback Icon**

Play/Pause is toggled and playback speed is shown on the left box.

- **Play DST**

Check this box to play overlapped images during DST (Daylight Saving Time) period.

For further details, please refer to Section 3.7 (DST Setting and Image Playback)

- **Intelli-Search Bar**

User can move the blue vertical line to the time that user wants to search.

The colors of the time bar are different by each recording mode. Please, refer to Section 4.3.2 for details on color

Chapter 2

ACS CLIENT SOFTWARE USER MANUAL

6 ACS USER GUIDE

6.1 System Requirement

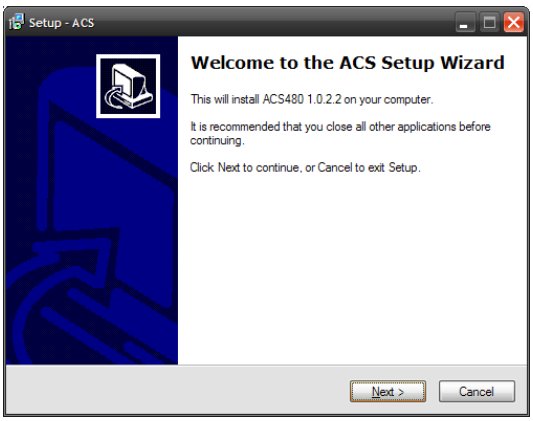
Minimum System Requirement.

OS	WindowXP, Vista
CPU	Intel Core i5 cpu 2.80GHz
VGA	ATI Radeon HD 512
RAM	4GB
HDD	20MB Free space

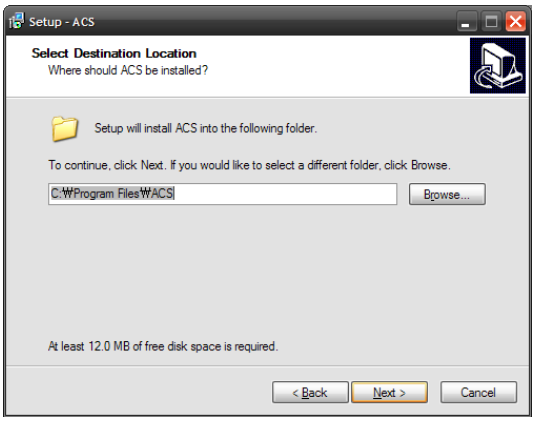
6.2 Install

a. Run Advanced Client SoftwareSetup.exe saved on the included CD.

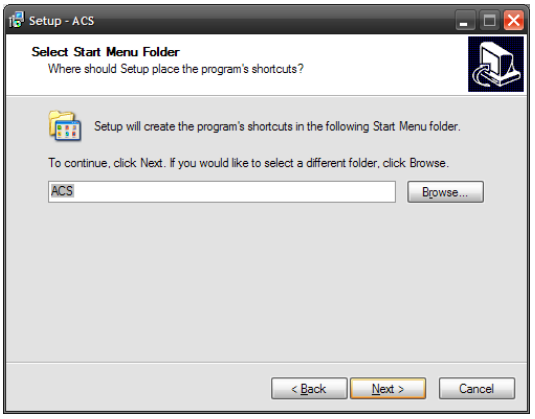
When clicked, the Setup Menu will appear.
Follow the setup instructions to complete the installation.



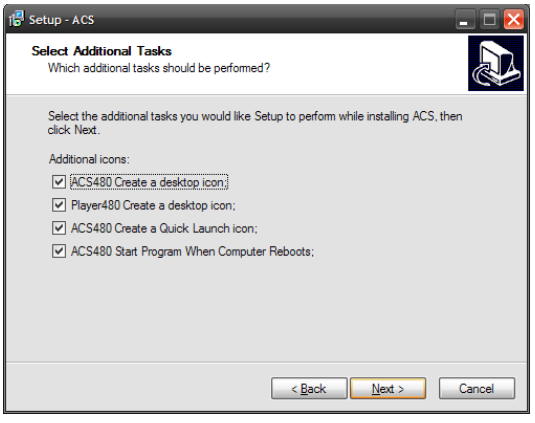
b. Press Browse... if you want to install the program in a different directory.



c. Press Next > to move to the next screen.

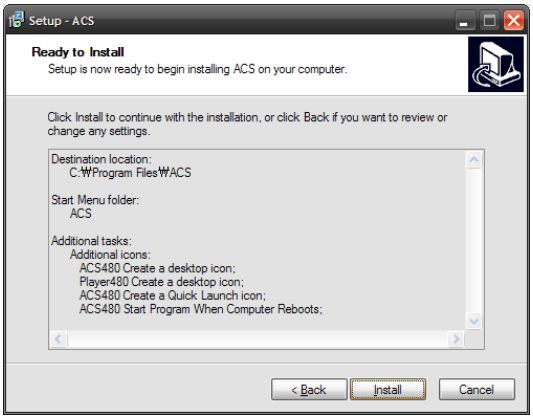


d. Press Next > to move to the next screen.



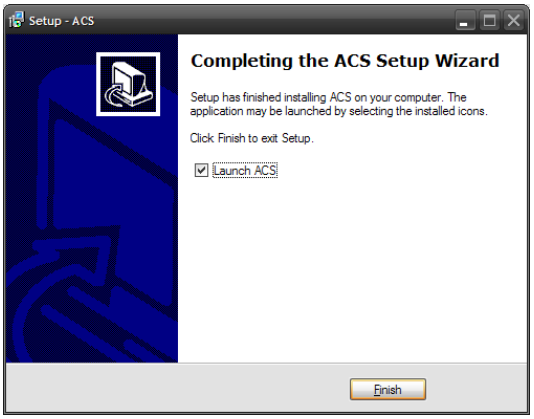
e. Select what Icons and shortcuts you wish to install on your desktop.

Press Next > to move to the next screen.



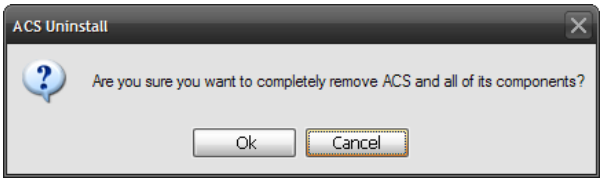
f. Select Install to begin installation. When the installation is complete, the below message will appear.

Select whether you want to launch the software and select "finish".

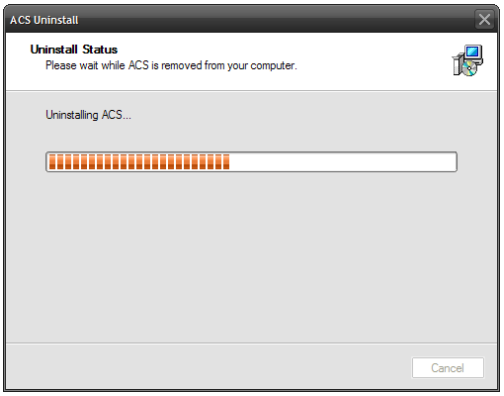


6.3 Uninstall

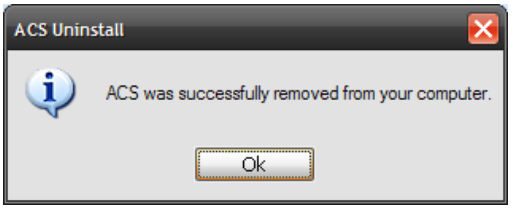
To uninstall ACS, press **UNINSTALL ACS** from the Start Menu of your PC.



A window will appear in Windows7 or Windows Vista. Press **YES** to begin the process.

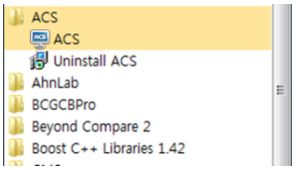


When the process is complete, the below message will appear.



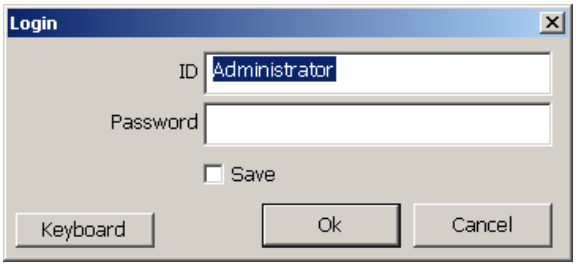
6.4 Basic Operation

Click on the **ACS** icon on the Desktop or click **START** on Windows PC and go to the ACS Folder.

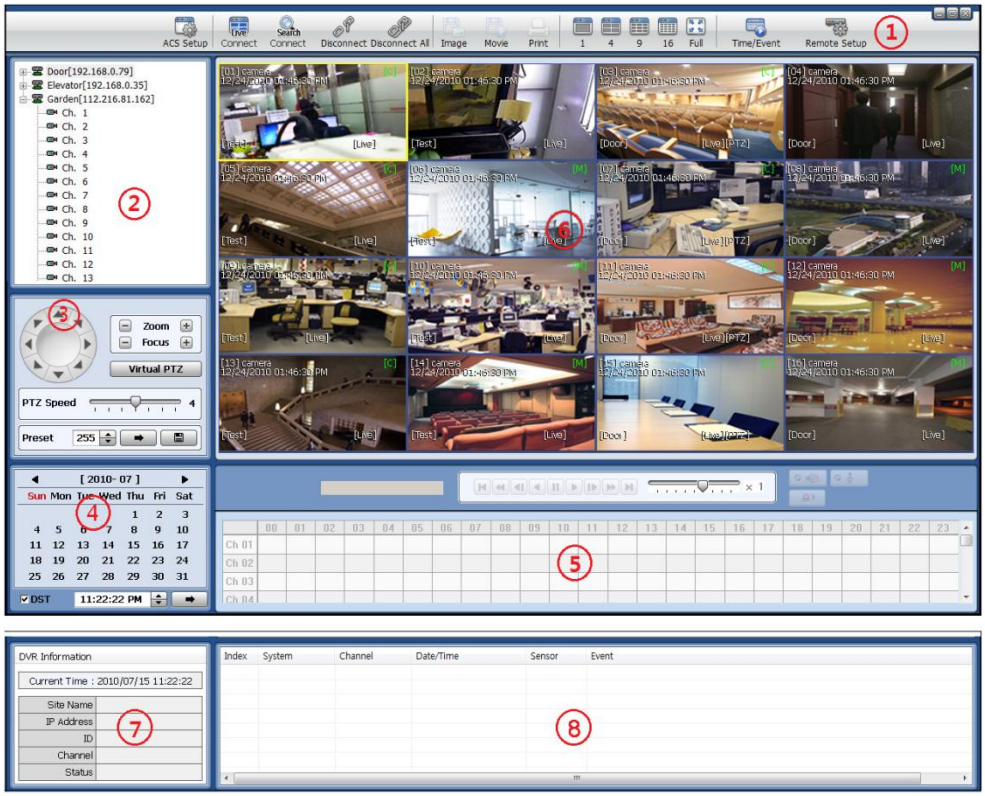


6.4.1 Log In

The default ID is Administrator, and there is no default password. The administrator account has the highest level of authority on the ACS.



6.4.2 Screen Layout

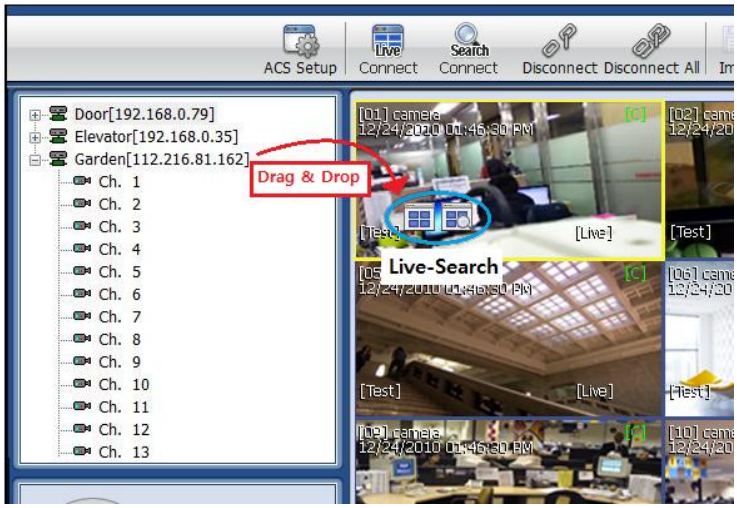


No.	Item	Description
1	Toolbar	ACS Setting, Live Mode, Search, Disconnect, Image Save, Video Save, Screen Mode Remote Setup
2	Site List Panel	Registered DVR Site list
3	PTZ Panel	PTZ camera control in live mode
4	Calendar Panel	Search by time and date
5	Search Panel	Recorded information is shown in search mode Control the speed of Playback and audio
6	Display Panel	Transmitted camera images are shown
7	Information Panel	Shows the current time and site information of the selected channel
8	Event List Panel	Event list update

6.4.3 Tool Bar

No.	Icons	Description
1	ACS Setup	Option setup for Advanced Client Software
2	Live	Showing live images
3	Search	Showing recorded images
4	Disconnect	Disconnect a selected channel
5	Disconnect All	Disconnect all channels
6	Image	Save a selected image
7	Movie	Save a selected video (asf format)
8	Print	Print out still image
9	Split	Single channel, 4-split channel, 9-split channel, 16-split channel
10	Full	Full screen mode
11	Time/Event	Toggle between Search panel & Event list panel
12	Remote Setup	Configure settings of DVR remotely
13	Window control	Minimize, Maximize & Exit Advanced Client Software

6.4.4 Site List Panel



- The Site List displays all of the DEVICES that are currently setup for remote connection with the ACS application.

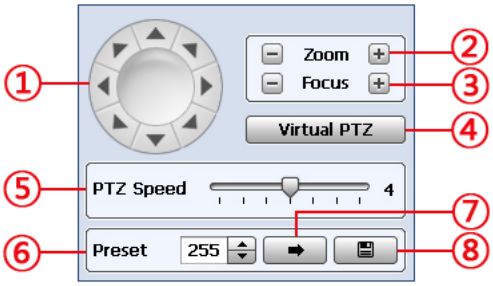
To select and view a desired camera or device, simply drag it from the site list panel onto the viewing area. Then, select the options Live or Search (

).

If a DEVICE site is dragged onto the viewable area, then the selected DEVICE or all cameras from the DEVICE will be displayed.

6.4.5 PTZ control Panel

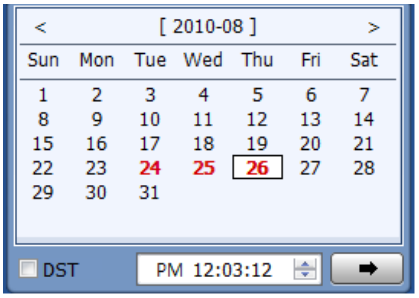
PTZ camera control is only available in Live mode.



No.	Button	Description
1	Navigation Key	8 directional arrows allow the user to move the PTZ camera. The PTZ Camera is moved when one of these arrows are pressed to the direction desired, and stops the movement if the mouse button is released.
2	Zoom	Zoom In and Zoom Out.
3	Focus	**Adjust the focus of the PTZ camera.**
4	Virtual PTZ	If Virtual PTZ is activated, it enables users to control the PTZ camera's movement, Zoom and Focus. PTZ can be controlled with the mouse on the channel screen directly.
5	PTZ Speed	Adjust the PTZ camera response speed. Getting Faster as moves to the right.
6	Preset	Set PTZ presets on current view.
7		Go to the preset location.
8		Save the preset location..

6.4.6 Calendar Panel

Calendar panel is only available in search mode.



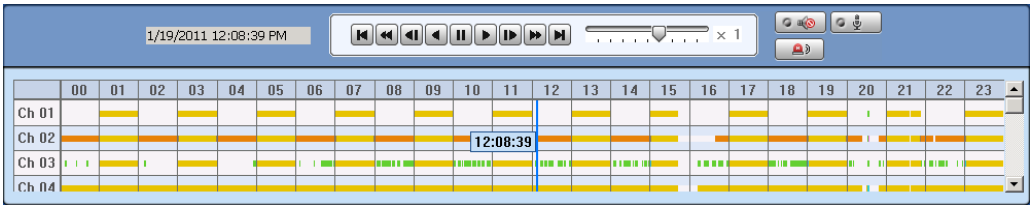
- The date is highlighted by red color if the record data exist.

- (Go button) should be pressed to start playback from the selected time.

- If DST is enabled, the earlier one-hour overlapped video will be shown first.

6.4.7 Search Panel

Search panel is only available in search mode.



- The Search panel shows the record information for each channel.

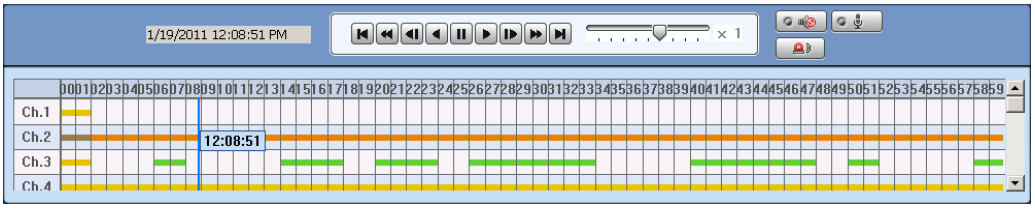
Each record mode is similar to below.

No Record	White
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

- Click the time or move the time bar to the time you want to playback in the search panel.

- For a more detailed search like below, double-click the time that you want to jump into.

Detailed search is available on a 2 minute basis like below.



- Playback control panel

No.	Button	Description
1		Go to First
2		Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
3		Step Backward
4		Reverse Playback
5		Pause
6		Forward Playback
7		Step Forward
8		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
9		Go to Last

- Audio control

(Audio On/Off): Turn On or Off for Audio channel.

Two-way Audio : Two-Audio between ACS and DVR.

Relay: Turn On or Off for Relay.

6.4.8 Display Channel

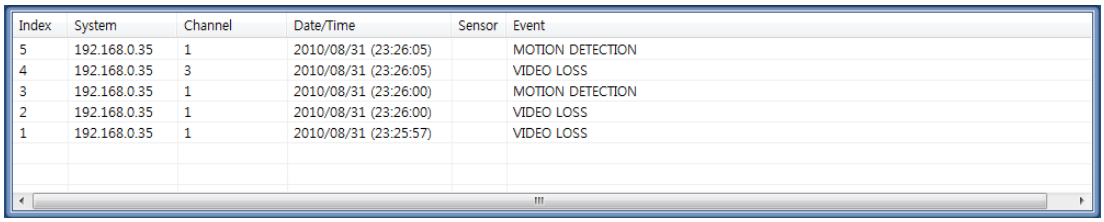
- Showing Live or Search screen

- In Live mode, [Live] will be displayed with all white text information. Blue channel boundary

- In Search mode, [Search] will be displayed with all red text information. Red channel boundary

- Yellow channel boundary for selected channel

6.4.9 Event List Panel



Index	System	Channel	Date/Time	Sensor	Event
5	192.168.0.35	1	2010/08/31 (23:26:05)		MOTION DETECTION
4	192.168.0.35	3	2010/08/31 (23:26:05)		VIDEO LOSS
3	192.168.0.35	1	2010/08/31 (23:26:00)		MOTION DETECTION
2	192.168.0.35	1	2010/08/31 (23:26:00)		VIDEO LOSS
1	192.168.0.35	1	2010/08/31 (23:25:57)		VIDEO LOSS

- Update event lists from DVR

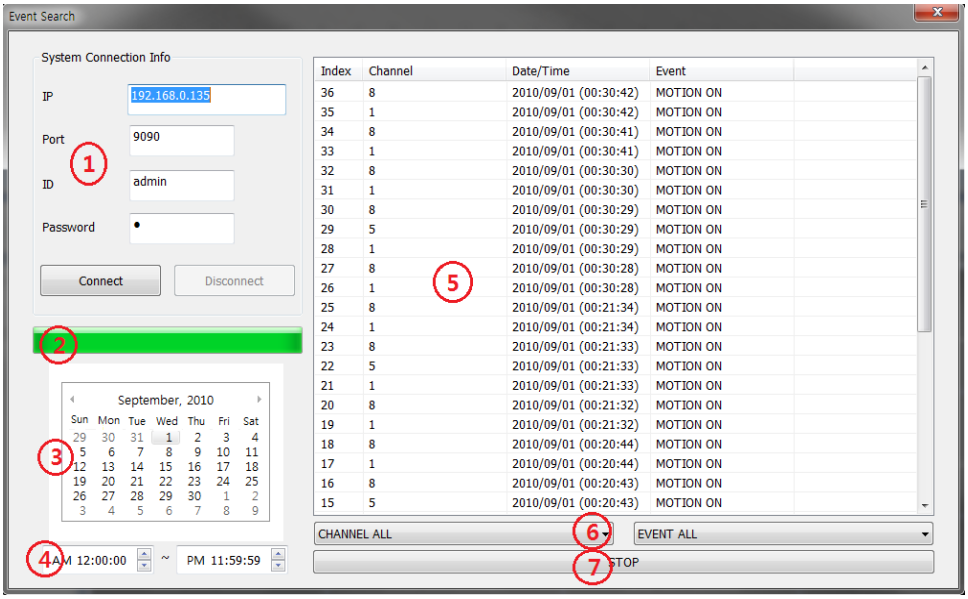
- Start the playback by double-clicking the list .

6.5 Advanced Operation

6.5.1 Event Search

- When you right click on a site in the site list, the quick access menu will be shown.

- Select **EVENT SEARCH** to run Event Search.

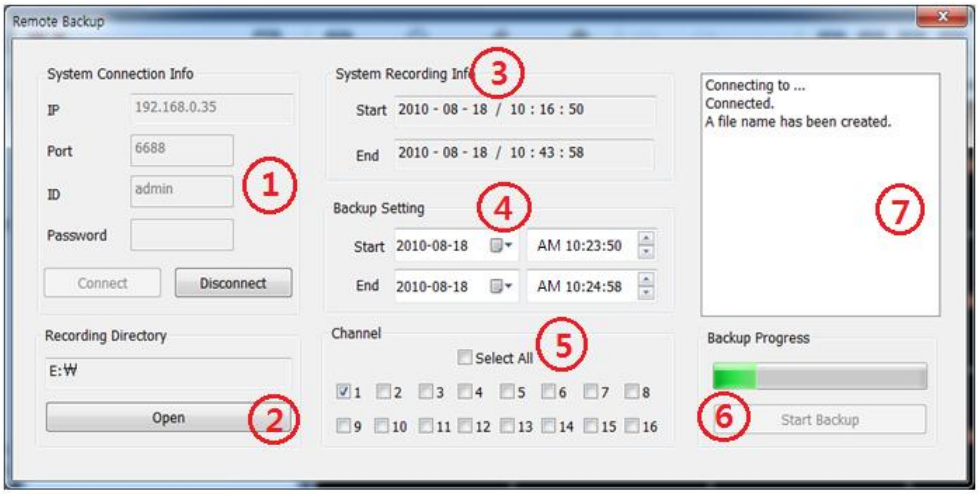


No.	Function	Description
1	System Connection Info	Input the information of DEVICE to connect.
2	Event Download Status	Right after connecting to DEVICE, event information will be downloaded automatically. The download progress bar will be shown.
3	Calendar Search	If there is an event in the selected date, the date is highlighted. Select a specific date to start event search.
4	Interval Setup	Set the interval for event search.
5	Event List	The desired date is chosen, the event list of the desired date will be shown on the list.
6	Channel/Event Filter	Event information can be sorted by a channel or event type.
7	Start/Stop Search	Start/Stop Search button.

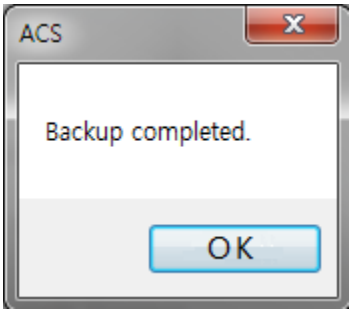
6.5.2 Remote Backup

- When you right click on a site in the site list, the quick access menu will be shown.

- Select **REMOTE BACKUP** to run Remote Backup.



No.	Function	Description
1	System Connection Info	Input the information of DEVICE to connect.
2	Recording Directory	Decide the recording directory to backup.
3	System Recording Info	Displays the start and end time of the recorded data in the system.
4	Backup Setting	Setup the start and end time of the data to backup.
5	Channel	Select the channel to backup.
6	Backup Progress	Backup Progress bar indicates the backup process status.
7	Backup Status Window	Displays the backup status in text message.

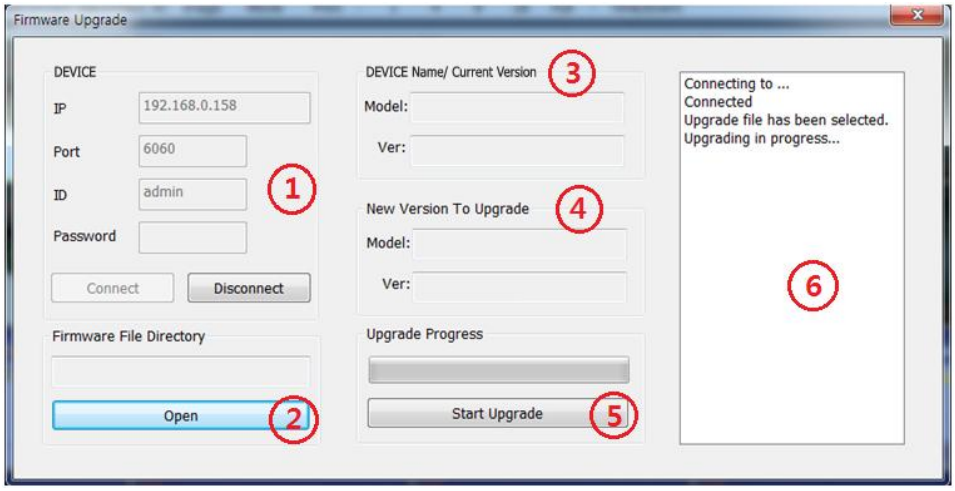


When the backup process is completed, “Backup Completed” message will appear.

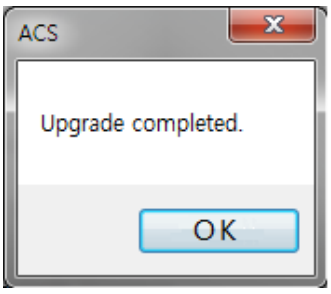
6.5.3 Firmware Upgrade

- When you right click on a site in the site list, the quick access menu will be shown.

- Select **FIRMWARE UPGRADE** to run Firmware Upgrade.



No.	Function	Description
1	DEVICE Connection Info	Input the information of DEVICE to connect.
2	Firmware File Directory	Decide the firmware file directory to upgrade.
3	DEVICE Name/ Current Version	Displays the current DEVICE Name and Firmware Version.
4	New Version to upgrade	Displays the new DEVICE Name and Firmware Version.
5	Upgrade Progress	Start Upgrade and upgrade progress bar shows the upgrade progress status.
6	Upgrade Status Window	Displays the upgrade status in text message.

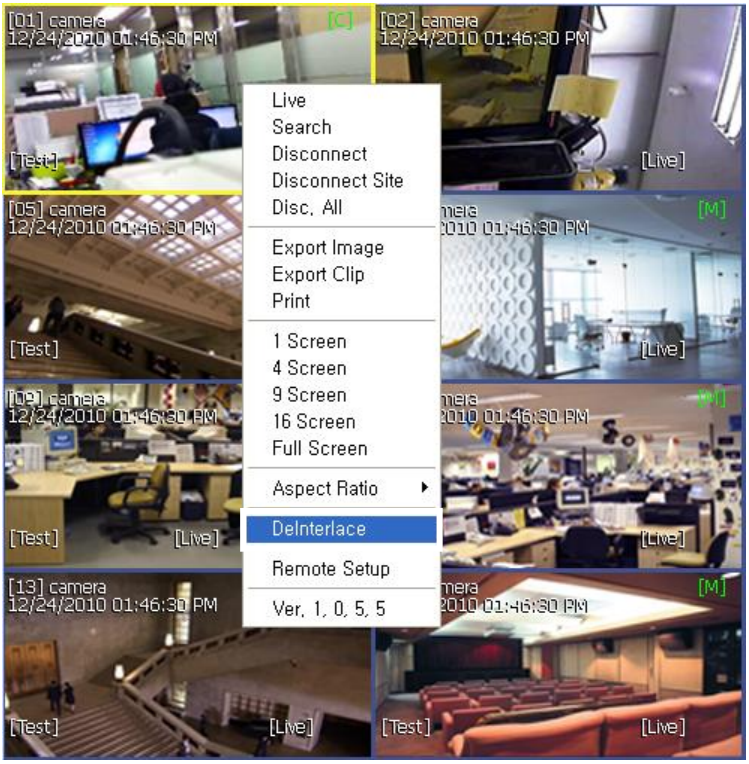


When the upgrade process is completed, "Upgrade Completed" message will appear.

6.5.4 DeInterlace

- User can set DeInterlace function on or off.

- Default is off.

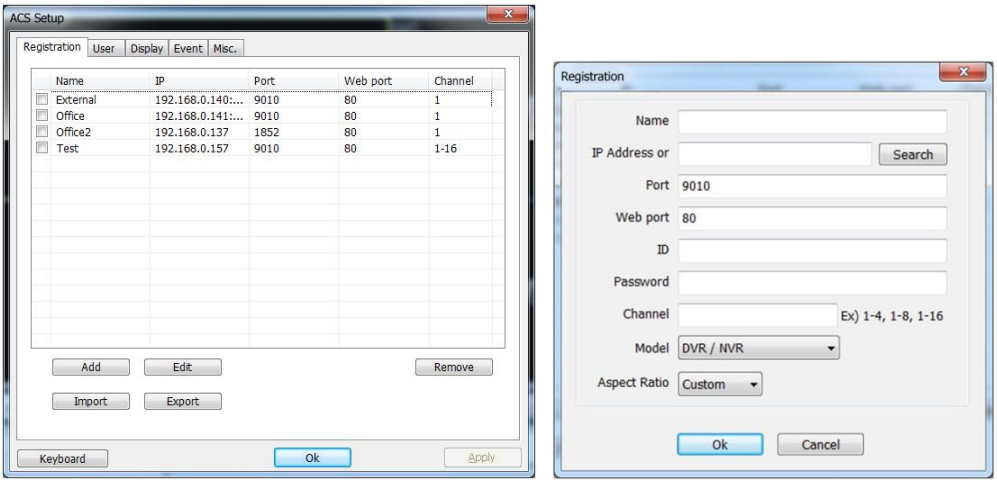


6.6 ACS Setup

: Options for DEVICE Registration, Network, User, Display, Event and other options.

6.6.1 DVR Registration

Add, Modify, Import, Export or Remove DEVICE site information.



Ex) Adding a new DVIECE site

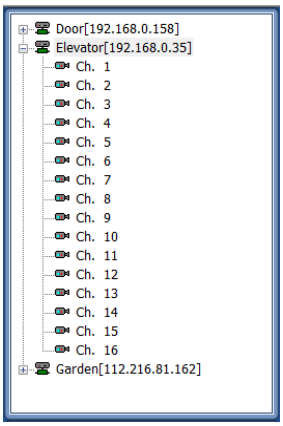
In order to add a DVR, click 'Add' button, and put right information.
** DVRs on UPNP can be detected by 'Search' button. Then the IP information is received automatically.

	Function	Description
1	Name	The name of the site.
2	IP	IP Address.
3	Search	Search the DEVICE sites in the same local network. (UPnP function)
4	Port	Port of the site. (Default: 9010)
5	Web port	Web Port of the site. (Default: 80)
6	ID	User ID of the site.
7	Password	Password of the site.
8	Channel	Number of channel of the site. (for example: 16ch DEVICE: 1-16 or specifically: 1,3,5,7,9)
9	Model	Select a DEVICE or DEVICE's model name.
10	Aspect Ratio	Select the displayed Aspect Ratio. (Custom, 1:1, 4:3, 16:9)

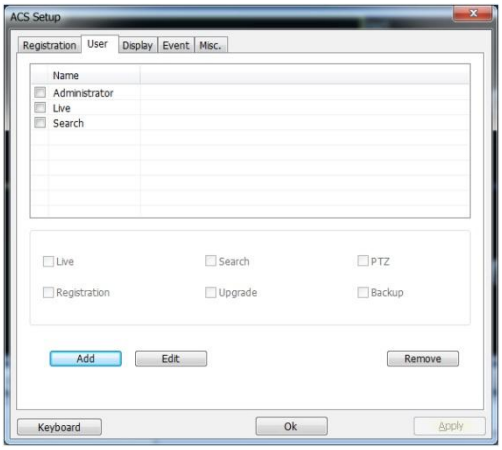
- To modify and/ or remove DEVICE information, click ADD or REMOVE to amend DEVICE site information.

Able to export the current site list and save as a file or import the file to the site list.

Once the new DEVICE site is added, the new DEVICE information will be displayed at DEVICE site panel as shown below.

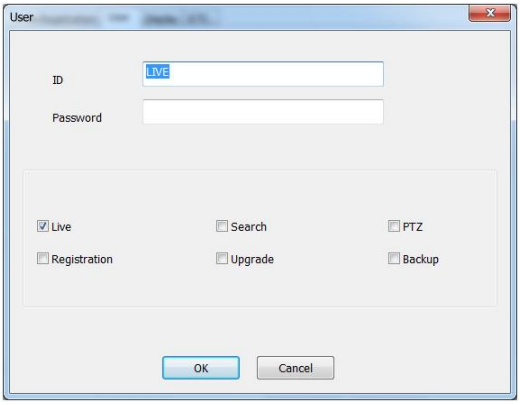


6.6.2 User



User authority can be changed by Administrator. "admin" is the built-in account for administrating the DEVICE and ACS program.

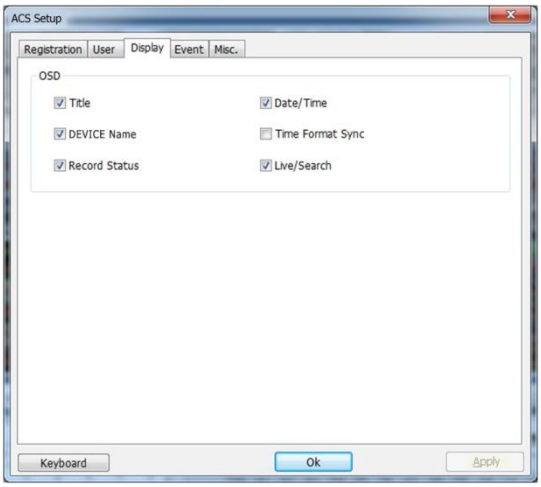
Ex) User authority change



User authority can be changed by Administrator. ID cannot be changed but should be removed.

6.6.3 Display

- Options for OSD setting



Title: Able to turn on/off the DEVICE title with the channel number.

Date/Time: Able to turn on/off the Date/Time of the site.

DEVICE Name: Able to turn on/off the name of the site.

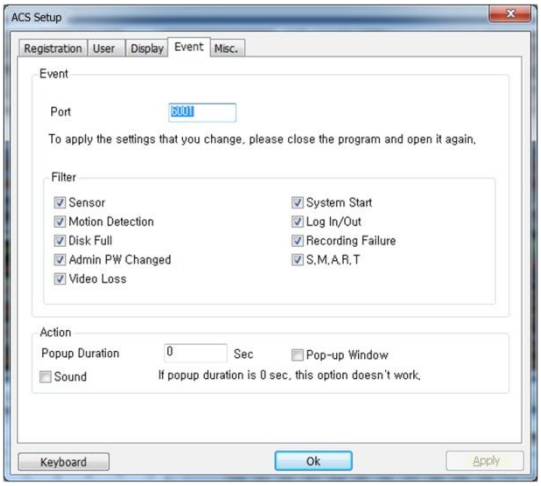
Time Format Sync: Synchronize the DEVICE time format to ACS.

Record Status: Able to turn on/off the Record Status of the site.

Live/Search: Able to turn on/off the Live/Search of the site.

6.6.4 Event

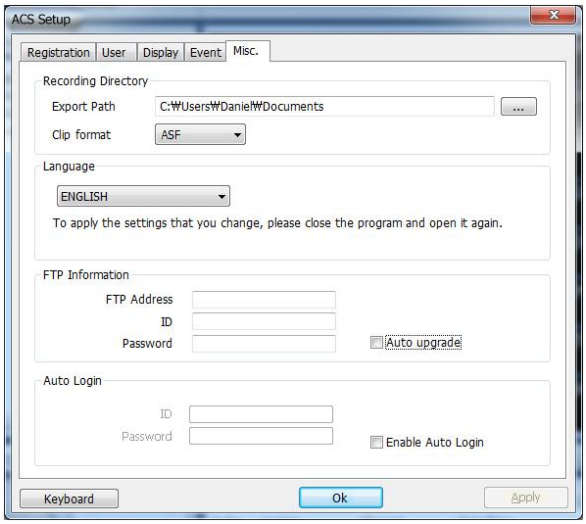
- Setup the event port, event type and popup settings for event.



No	Item	Description
1	Port	Input the same event port number of DEVICE setting to receive event notification from the DEVICE.
2	Filter	Select the type of event to receive.
3	Action	Setup the popup duration and enable beep sound.

6.6.5 Misc.

- Setup the Recording Directory, Language, Auto Upgrade, and Auto Login.



	Function	Description
1	Recording Directory	Decide the recording directory to save images and moving images. Video is saved as .ASF or .MP4.
2	Language	Select a desired language.
3	FTP Information	In order to have Auto Upgrade, input FTP information. Once the FTP setup is done, ACS will detect the latest firmware is in the FTP and start upgrading automatically.
4	Auto Login	If you enable the auto login after inputting ID and Password, next time when you login, you don't need to type in the ID and Password again.

Chapter 3

MAC ACS CLIENT SOFTWARE USER MANUAL

7 MAC ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

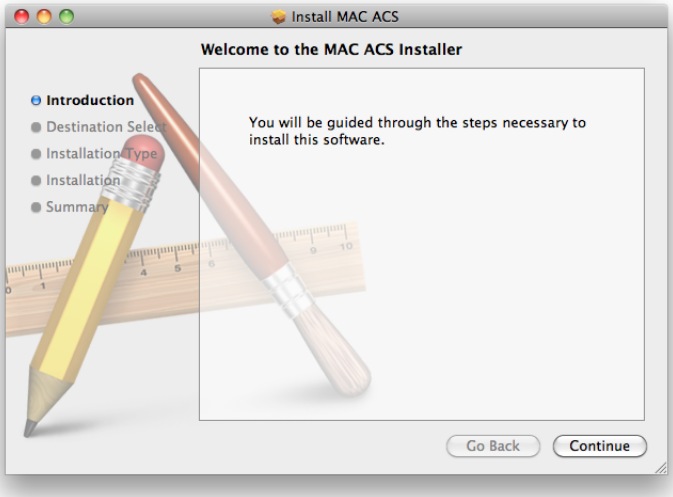
OS	Mac OS X 10.6(snow leopard)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

Minimum System Requirement.

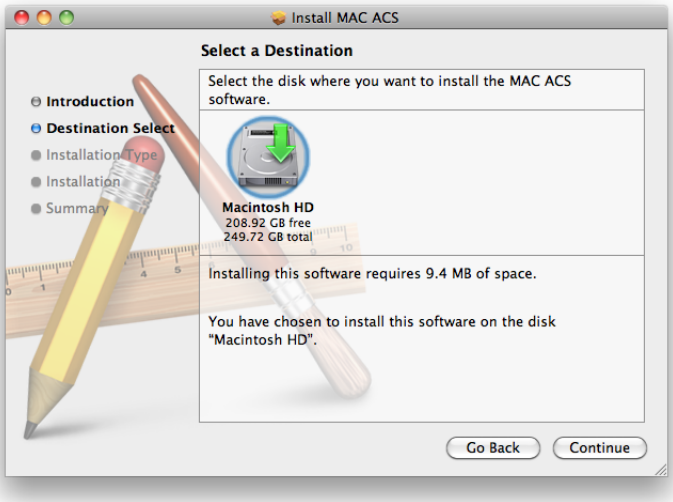
OS	Mac OS X 10.5(Leopard)
CPU	Built-in Intel CPU MAC
VGA	64MB
RAM	512MB
HDD	20 MB Free space

7.2 Install

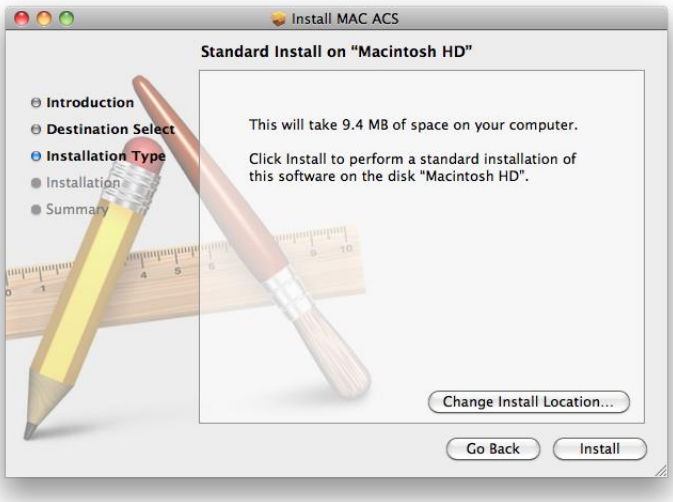
a. Run MAC ACS.pkg on CD, and a Setup Menu appears as below.



b. Select the HDD to be installed. Press the [Continue] button to move to the next screen.

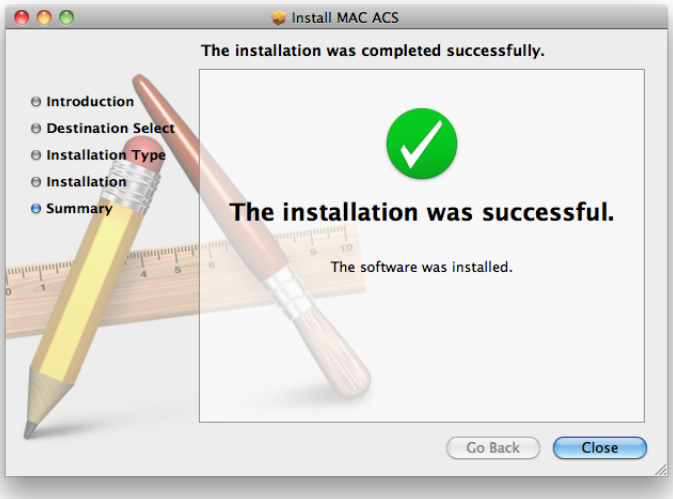


c. Press the [Continue] button to move to the next screen



d. Press the [Install] button to Install MAC ACS.

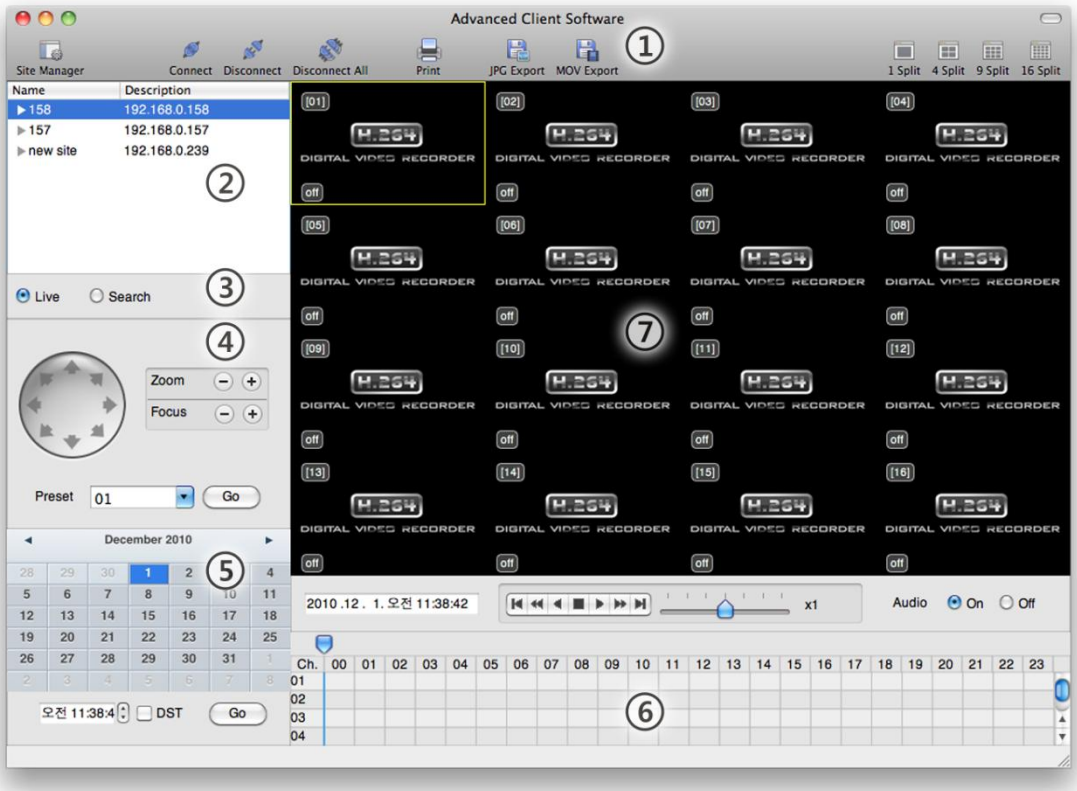
e. Put in the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.



7.3 Basic Operation

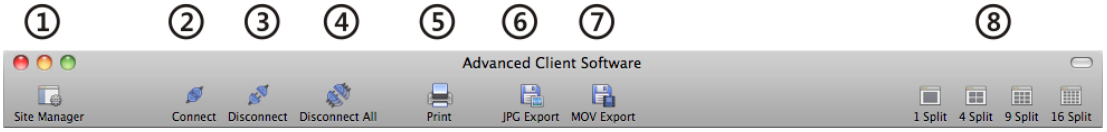
Click on ACS icon on Application Folder

7.3.1 Screen Layout



No.	Item	Description
1	Main Toolbar	AVS Setting, Live and Search Connect, Disconnect, Image Save, Screen Mode and Change
2	DVR List Panel	Registered DVR Site List. Possible to connect by Dragging
3	Live or Search Connect Panel	Click Live or Search mode to connect the panel
4	PTZ Panel	PTZ Camera Control in Live mode
5	Calendar Panel	Search by Time and Date
6	Search Panel	Recorded information is shown in search mode. Control the speed of Playback and Audio as well
7	Display Panel	Transmitted Camera images are shown (Live and Playback)

7.3.2 Main Toolbar



No.	Button	Description
1	Site Manager	Register or Delete DVR on the list
2	Connect	Connect to a site that is listed on the DVR list panel (Select Live and Search mode at Connect Mode Panel)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels
5	Print	Print out still image
6	JPG Export	Save a selected image to the desktop as JPEG format
7	Movie Export	Save a selected video clip to the desktop as mov format
8	Split	Single Channel, 4-Split, 9-Split, 16-Split

7.3.3 Site List Panel

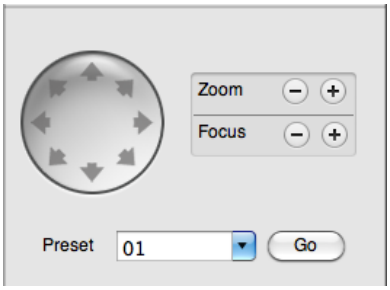
The site list panel shows registered DVR lists. To connect, Drag & Drop the site.

Before you connect the site, Select the Live or Search mode first in the connection mode panel.

16 different On-Screen DVR, a mixture of different connection modes can be monitored.

7.3.4 PTZ Panel

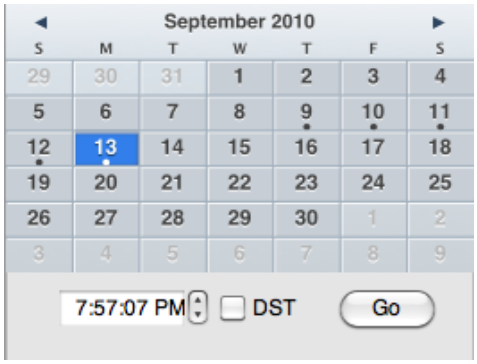
PTZ camera controls in Live Mode. PTZ Camera can control if the channel is activated on PTZ operation.



No.	Button	Description
1	Navigation Key	PTZ camera can be moved in 8 directions and Whenever click the direction key, it moves slowly.
2	ZOOM	Zoom In and Zoom Out
3	FOCUS	Adjust the focus of PTZ camera
4	PRESET	Select the preset location
5		Go to the preset location

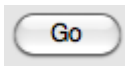
7.3.5 Calendar Panel

Activated in Search Mode



The recorded data will be shown in blue bold with the dot which is located below the number

When you click the recorded date on the search mode, the playback time will be detected automatically

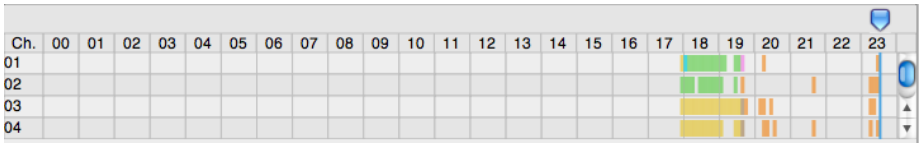


(Go Button) should be pressed to start playback from the selected date and time

If DST is enabled, the earlier one-hour overlapped video will be shown first.

7.3.6 Search Panel

Activated in Search Mode



- The Search panel shows the record information for each channel.

- Each record mode is like below.

No Record	Background Color
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

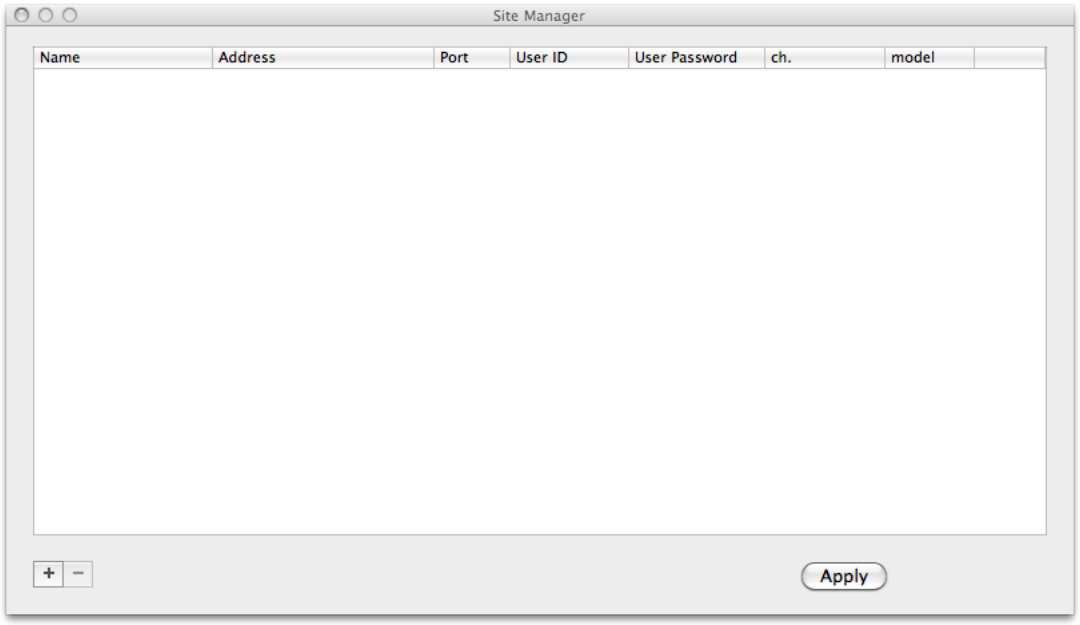
- Click the time or move the time bar to the time you want to playback in the search panel.

- Playback control panel

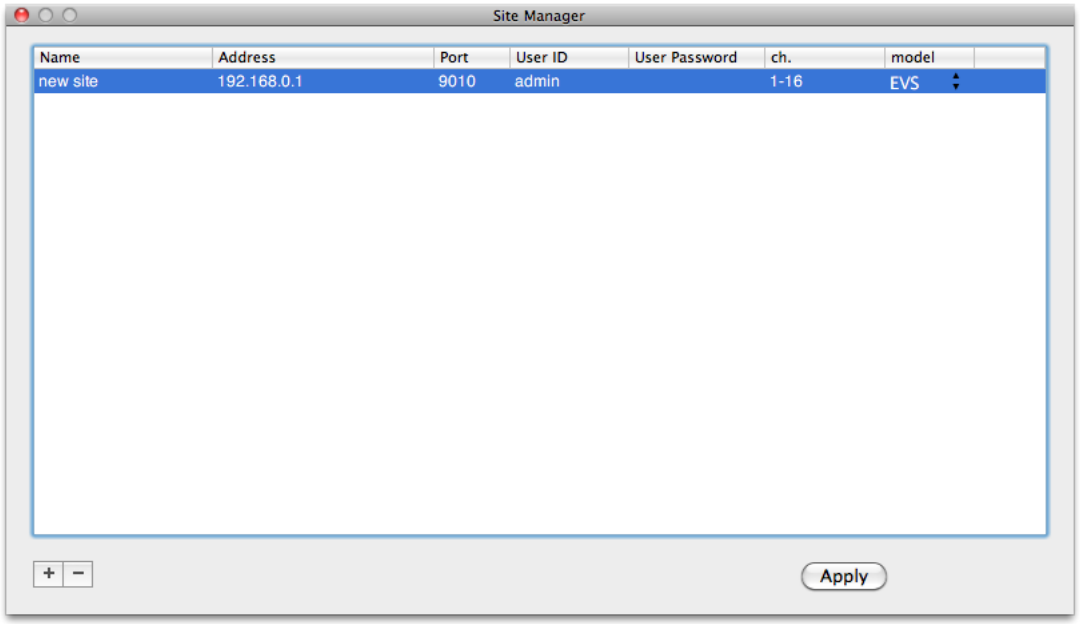
No	Button	Description
1		Go to first
2		Forward Playback : Decrease the Speed / Reverse Playback : Increase the Speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
7		Go 10 seconds before the end of the data.

7.3.7 Site Manager

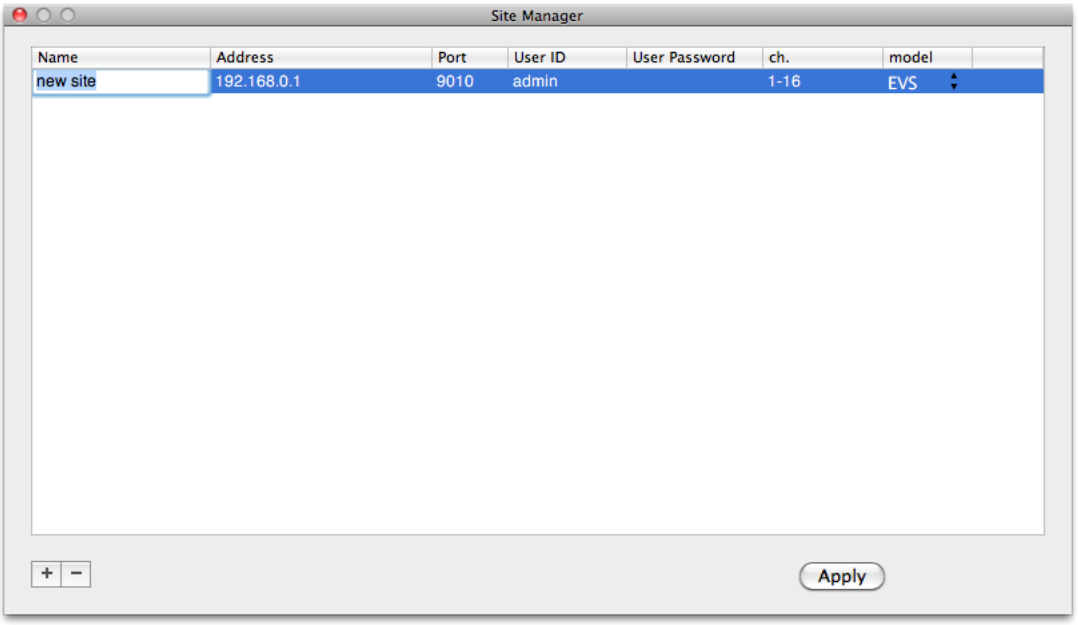
Add or Modify or Remove DVR site information.

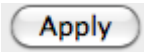


Press to register the DVR as follows : The default value is registered



To fix, Double-Click on the item. For example, Double-click " New Site " to change the name.

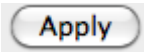


After modifications have been made, press 

No.	Function	Description
1	Name	Fill in the name of the site to be registered
2	IP	Fill in the IP of the site to be registered
3	Port	Fill in the PORT No of the site to be registered (Default 9010)
4	User ID	Fill in the ID of the DVR to be connected
5	User Password	Fill in the PW of the DVR to be connected
6	Ch.	Fill in channel of the site to be registered (ex, 16 Ch DVR: 1-16 or Registered by Camera : 1,3,5,7,9)
7	Model	Select Model name of the DVR to be registered

Please double click the items, if you want to change the item from the registered information.

If you want to delete the registered DVR information, Select the DVR and click

After modifications have been made, press 

Chapter 4

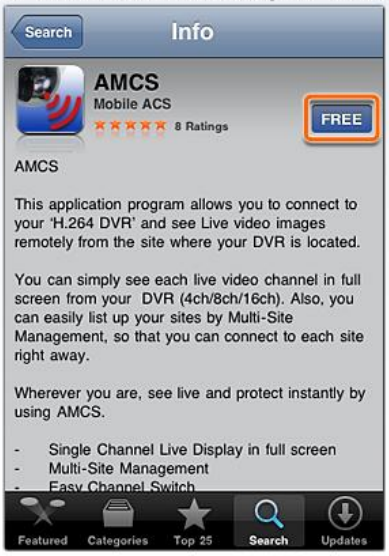
MOBILE PHONE SOFTWARE USER MANUAL

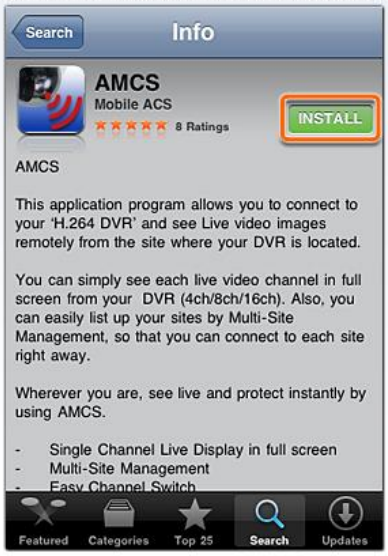
8 MOBILE PHONE SOFTWARE USER GUIDE

8.1 iPhone application software

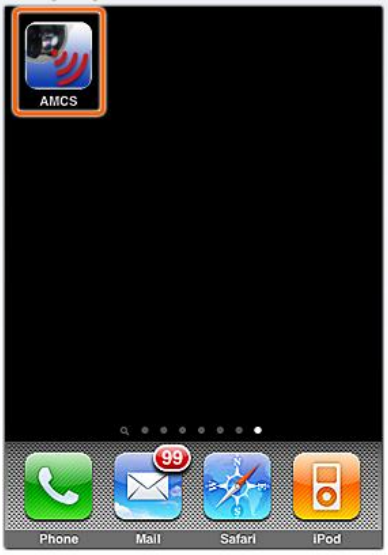
1 Installation Mobile ACS 2 3 4 5 6 7 8 9

3 Now you can see the detail information about the 'AMCS (Mobile ACS)' application.
Click 'FREE' button then it will change to 'INSTALL' button. Click 'INSTALL' button to proceed.





4 When mobile application is installed successfully, you will see the AMCS (Mobile ACS) icon on your iPhone and the loading page will be also seen before you connect to the mobile application after you click the icon.



1 2 How to connect and setup 3 4 5 6 7 8 9

1 Press "+" button to add desired device.

2 Fill in the new site information correctly and press "Save" button to save. For the model option, please choose "NVR".

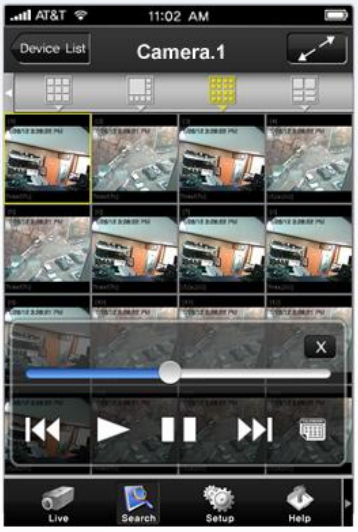
1 2 **3 How to connect and view** 4 5 6 7 8 9

1 At first, select the desired device.
To see live view, press the live icon on the bottom of the screen.

2 User will have live screen view and can also select the desire layout.

1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen.
Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.



1 2 3 4 **5 Drag and Switch Function / Layout** 6 7 8 9

1 Drag / Switch Function : User can use Drag / Switch function to switch the screens.
User can see bigger picture of desired camera view.

2 Layout Function : User can select the desire layout.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by + icon and – icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

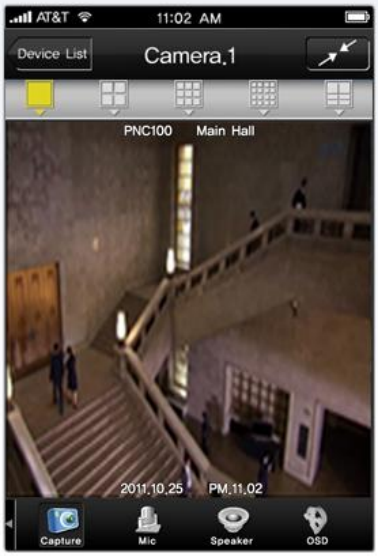
Pan/Tilt

Zoom In/Zoom Out

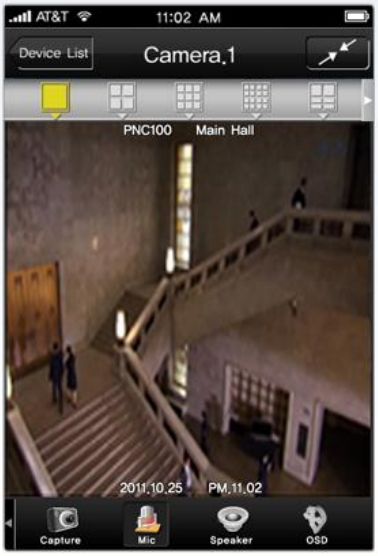
Preset

7 Capture / 2 way audio function

1 User can use Capture function by pressing Capture icon on the bottom of the screen.



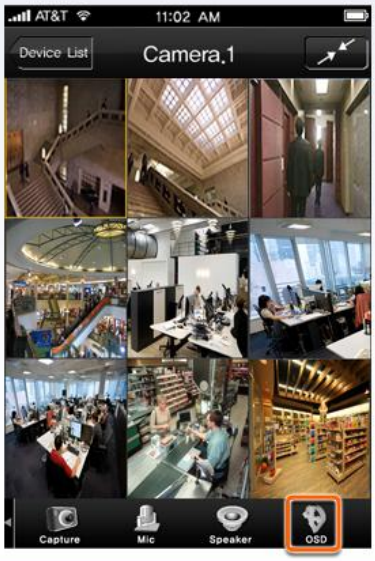
2 By using mobile application, 2 way audio is available. On the bottom of the screen, there are Mic and Speaker icons.

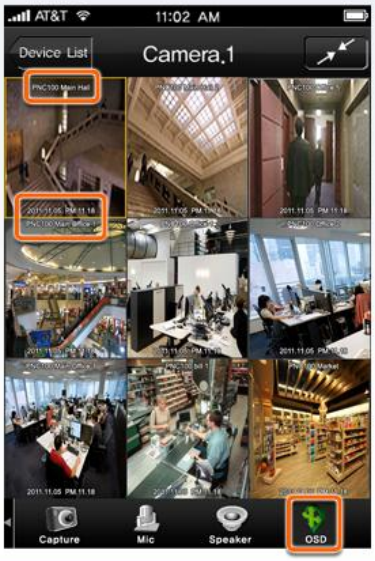


1 2 3 4 5 6 7 **8 Setup / Display Camera Information** 9

1 User can setup on the "Remote Setup" page. When you are done setting, press "Done" button.

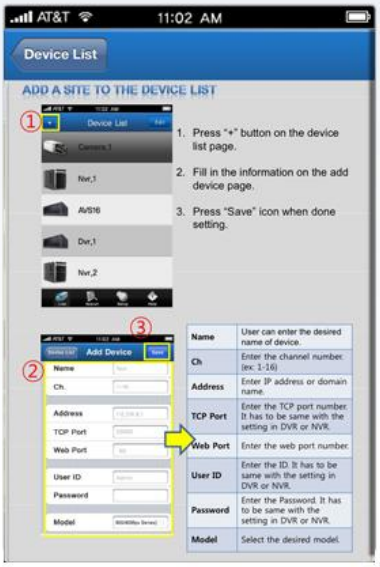
2 Display Camera information : Camera name, Place, Date and Time.





1 2 3 4 5 6 7 8 **9 Help**

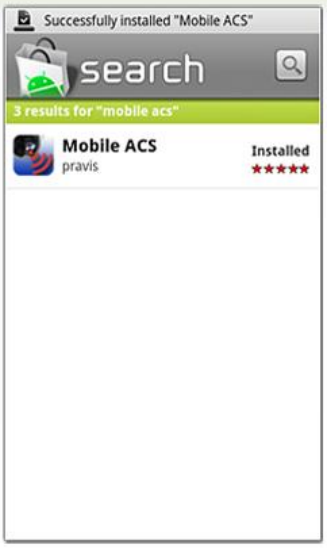
1 Help menu can be selected in bottom incon menu.



8.2 Android application software

1 Installation Mobile ACS 2 3 4 5 6 7 8 9

5 You will see a detailed information about the 'Mobile ACS' application. Press 'Install' button to install it.



6 Now you can see the 'Mobile ACS' icon after proper installation.
Splash image will be pop-up by activation.

1 2 How to connect and setup 3 4 5 6 7 8 9

1 Press "+" button to add desired device then set-up menu will be pop-up automatically.

2 Fill in the new site information correctly and press "Save" button to save after selecting correct device.

1 2 **3 How to connect and view** 4 5 6 7 8 9

1 In order to connect target device, press icon in right to activate then select live icon in bottom.

2 User is able to get the live video and display mode can be selected in defined layout icons in top.

1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen. Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.

1 2 3 4 **5 Drag and switch Function / Layout** 6 7 8 9

1 Drag / Switch : User can switching video position. Please drag the selected channel then drop it into desired window to switch.

2 Display Layout : Various display layout can be selected in icons in top.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by "+" icon and "-" icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

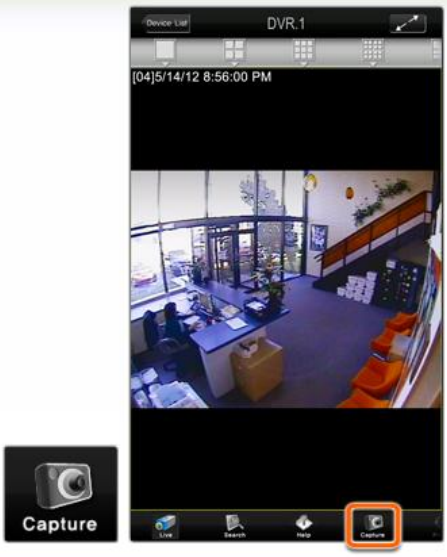
Pan/Tilt

Zoom In/Zoom Out

Preset

1 2 3 4 5 6 **7 Capture / 2 way audio function** 8 9

1 Snap shot can be captured through capture icon in bottom menu.



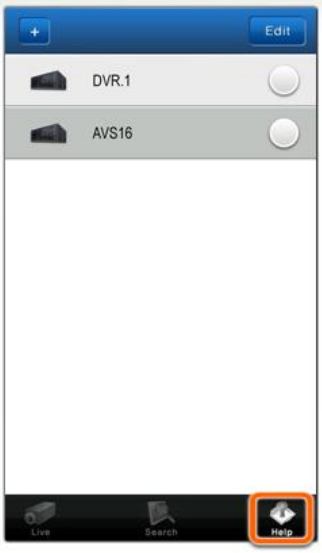
2 2 way audio can be on/off by selecting speaker or microphone icon in bottom menu.

1 2 3 4 5 6 7 **8 Display Camera Information** 9

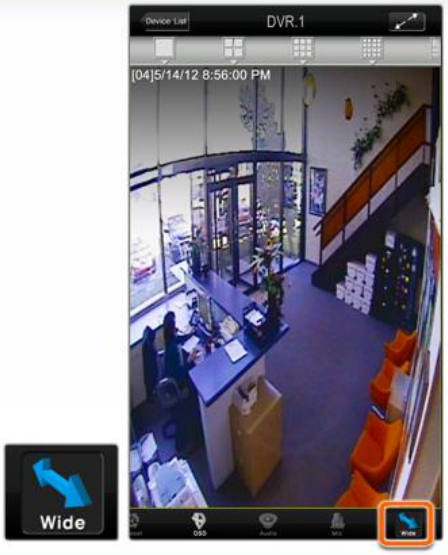
1 OSD can be on / off and it displays camera title & time & date information.

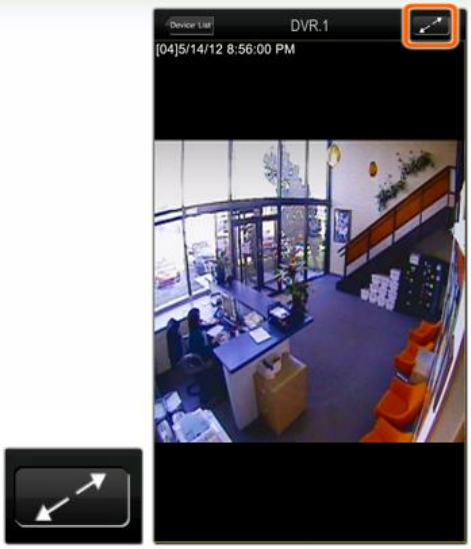
1 2 3 4 5 6 7 8 **9 Help**

1 Help menu can be selected in bottom incon menu.



2 Custom Fit(Strech the video to fit for window) / Full Screen Mode.





8.3 Using WAP+3G Connection

1 In case of using WAP, 3G Connection

1 First, you need to check out 'WEB PORT' of your DVR, because WAP Base Connection method is mainly based on the Mobile Web Service through the 'WEB PORT'. [Default setting is 80]

2 Type your connection URL in the Internet Browser in your Blackberry.
The URL type should be one of the following two URL types.

http://Your_IP_Information/mobile/ [OR] http://Your_IP_Information/mobile/index.html

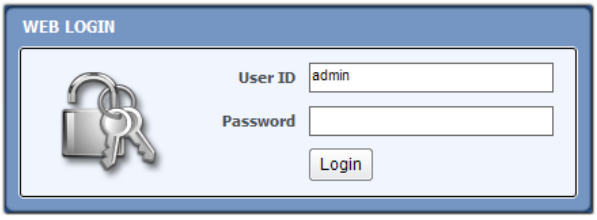
i.e) http://72.243.193.204/mobile/ [OR] http://72.243.193.204/mobile/index.html

Note:
- You may need to input 'index.html' at the end of your URL depending on your Web Browser Property. Therefore, please try both URL types.

3 If the 'WEB PORT' of your DVR is not '80', but other port number, for example, '8088', then you need to type '8088' at the end of the URL.

i.e) http://72.243.193.204:8088/mobile/ [OR] http://72.243.193.204:8088/mobile/index.html

4 When the connection is successful, you can see the below windows.
Please type in User ID and Password. The default setting is admin(User ID) and No password like below.



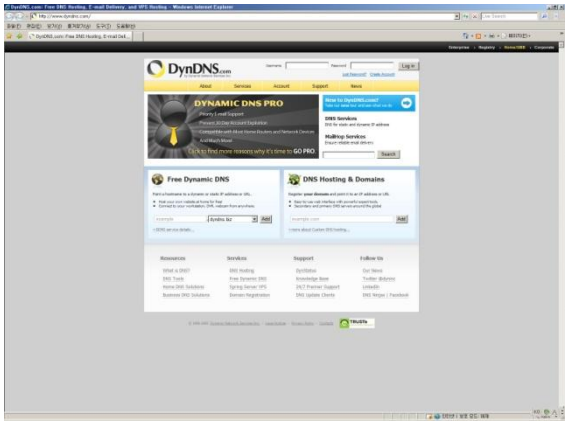
1 In case of using WAP, 3G Connection

Note:

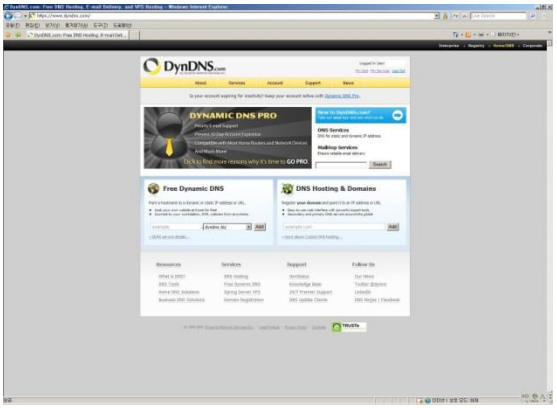
- When connection established successfully, the JPEG image will be refreshing 1 image per about 5 seconds automatically.

APPENDIX : DYNDNS SITE REGISTRATION

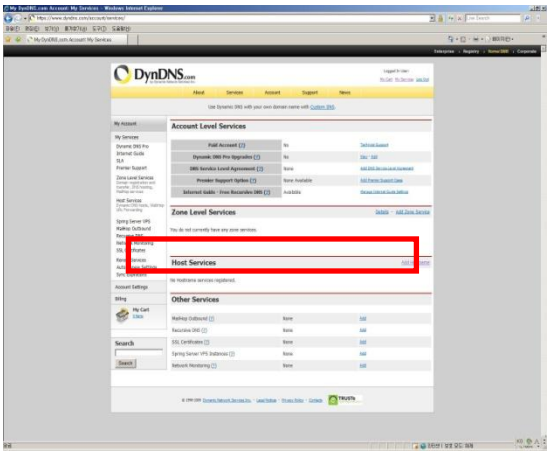
1) Go to www.dyndns.com



2) Log in to the Site after registration

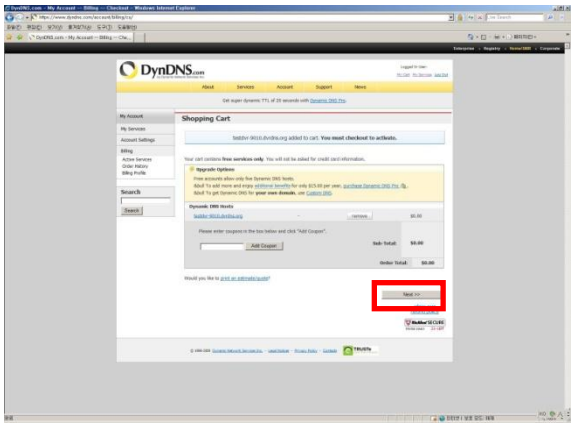


3) Click " Add Hostname" button on "Host Services"

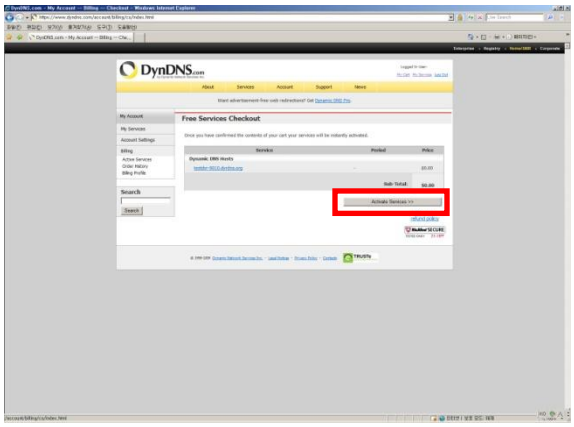


4) Put in the IP address and Host name on the blank

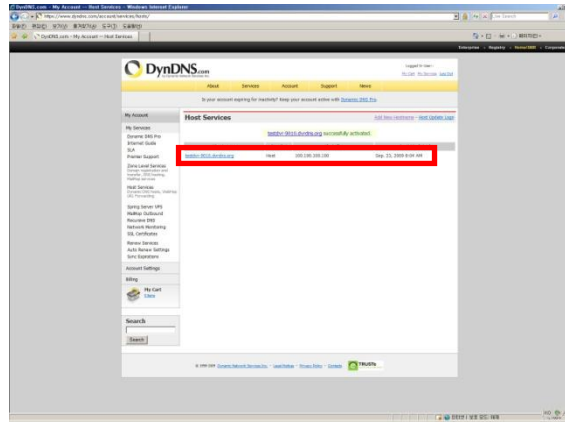
5) Click “NEXT” Button



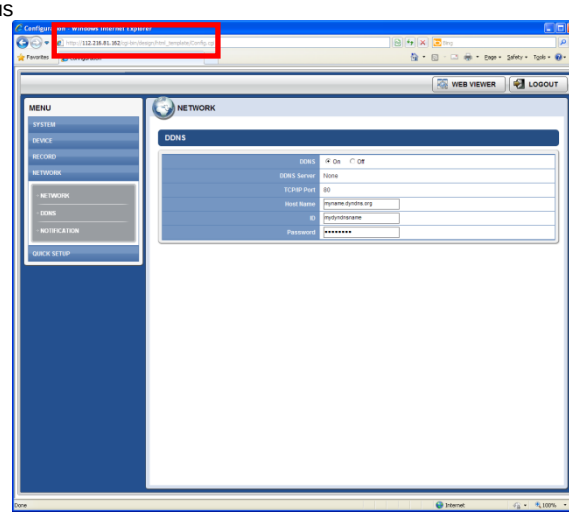
6) Click “Activate Services” button

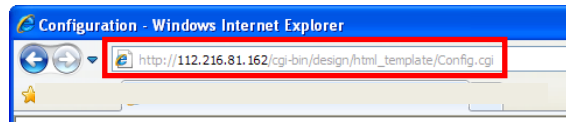


7) Confirm the domain name and IP address



8) Check the connection status





- **Tip**

1. It may take a little time to be completely done for DNS deployment after changed sub domain.
2. Please recheck DVR's IP address registered in the My Service Menu, if you can't access DVR using dyndns.
3. If you are using dyndns to change the IP address for the DVR to the update request, dyndns update by the circumstances that may be late.
4. Dyndns domain is registered by the policy. If the update occurs frequently, it may be blocking.
   Please recheck DVR's service status registered in the My Service Menu, if you don't access dyndns.
5. If you don't access dyndns for a long time, domain will be deleted automatically.
   To prevent this, please access it regularly, or you will have to pay for it again.
   For more information, please contact to dyndns directly

APPENDIX : SPECIFICATION

MODEL		XDR960-08	XDR960-16
Photo			
Compression Algorithm		H.264	
HDD Interface		2EA X SATA I / II	
OS		Embedded Linux	
Video	Input	8 BNC / 16 BNC	
	Looping	8 or 16 x Loop out ports	
Video Mode		NTSC / PAL Auto Detection	
Display Speed (NTSC/ PAL)		480 / 400 fps @ 960H	
Screen Split		1, 4, 9, CAMEO (1ch)	1, 4, 9, 16, CAMEO (1ch)
Video-Out	Monitor	3ea x Main Monitor (HDMI , Composite, VGA) 1 x Digital Spot out (Full, 4, 9, 16 Mode)	
	Display Resolution	1024x768, 1280x1024,1280x720P,1920x1080P	
Recording Speed (NTSC/PAL)	480x240 / 288	240 / 200 fps	480 / 400 fps
	960x240 / 288	240 / 200 fps	480 / 400 fps
	960x480 / 576	240 / 200 fps	480 / 400 fps
Recording Resolution		NTSC : 480x240, 960x240, 960x480 PAL : 480x288, 960x288, 960x576	
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instant(Panic) Record	
Playback & Search	Speed	x1, x2, x4, x8, x16, x32	
	Function	1, 4, 9ch (Multi-Channel Playback)	1, 4, 9 & 16ch (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, Play from Search, System Log, Panorama Search, Cameo Search	
Audio Input / Output/ MIC		In 8,16 / Out 2 / 1 x MIC	
Alarm Input / Relay Output		8 x In / 2 x Relay Out	16 x In / 2 x Realy Out
P/T/Z Control and Port		Virtual Joy-Stick control on screen (by mouse)	
LAN		1x10/ 100/ 1000Mbps Gigabit Ethernet	

MODEL		XDR960-08	XDR960-16
Network Transmission	Function	240/192 fps @ 960*480(576), 480/400 fps @480*240(288)	
		Video Dual-Stream (Local Recording & Network Transmission)	
		Live Monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification with JPEG, Remote System Reboot by Client(ACS&CMS)	
Mobile Device support		iPhone, iPad, Backberry, Android, 3G mobile	
Remote PTZ Control		Pan / Tilt / Zoom / Focus / Iris	
Long Reach Video Equalizer		1~4Ch up to 900Meter (3,000ft)	
Remote Management	Software	ACS Client S/W & CMS	
	Web (IE)	Live Monitoring, Playback & System Configuration	
Backup Device	Internal	Bulti-In DVD (Optional)	
	External	Local Backup by USB Memory Stick(2ea), Network Backup by CMS Support	
Advanced Functions		Long Reach Video Amplifier (Built-in 4Channel) Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Call Monitor Configuration, Import & Export, & Instant File Backup Warning Alarm for System Over-Temperature	
System Operation		IR Remote Controller, USB Mouse, Front Keys	
Power		12V x 6.67A D/C	
Storage Temperature and Humidity		-20~60°C / 20~95% RH	
Operating Temperatureand Humidity		5~40°C / 20~80% RH	
Certification		CE & , RoHS	

NOTE The specifications are subject to change without notice